CD car radio 69DC902/00/10

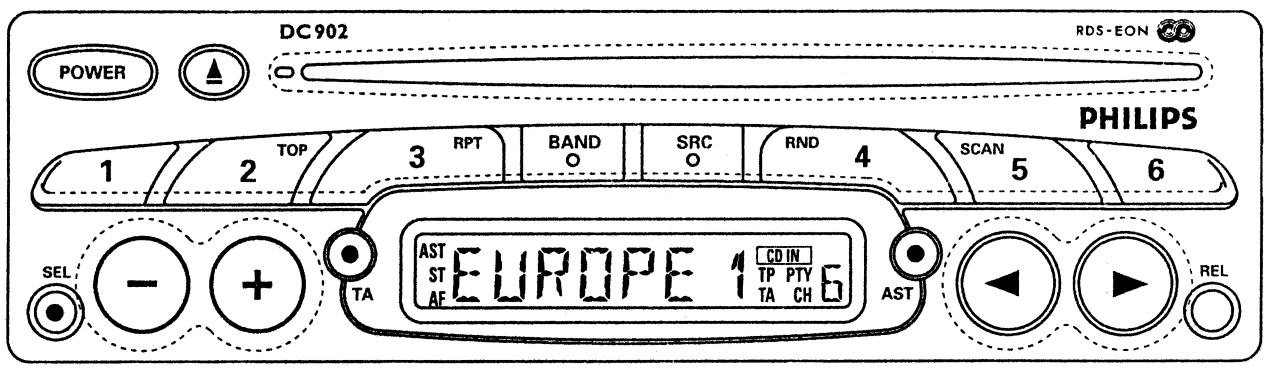
69DC922/00/10/80

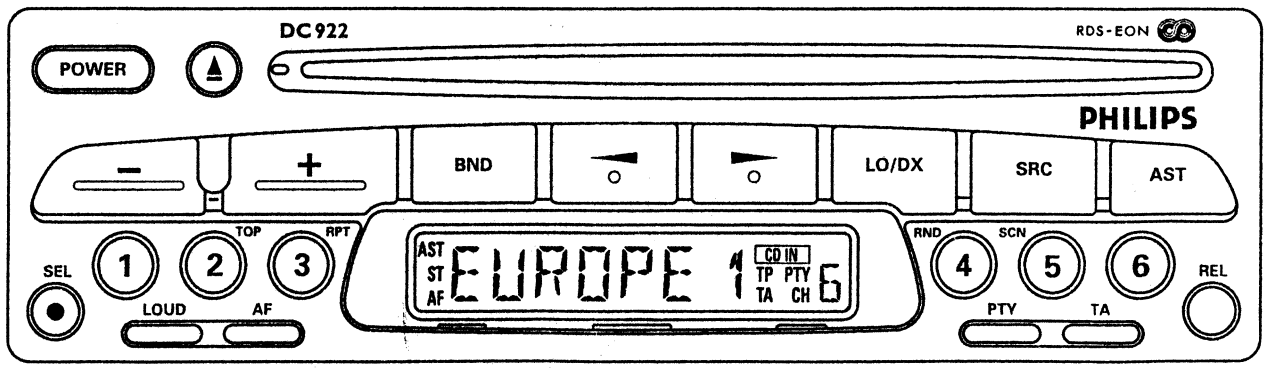
Service
Service
Service

For repair information of the CD deck see Service Manual of CD mechanism deck CDM-9/MOD-4 4822 725 23506

ServiceManual

12 V





COMPACT disc DIGITAL AUDIO

CLASS 1 LASER PRODUCT

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PHILIPS

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TECHNICAL DATA

GENERAL

Power supply:	10.8 - 15.6 V
Quiescent current:	≤ 4.5 mA (at 12.6V)
Maximum current:	7 A

TUNER

FM EUROPE	87.5 - 108 MHz	grid: 50 kHz
FM USA	87.9 - 107.9 MHz	grid: 100 kHz
MW EUROPE	531 - 1629 kHz (565 - 184 m)	grid: 9 kHz auto / 1 kHz man.
AM USA	530 - 1710 kHz (566 - 175 m)	grid: 10 kHz auto / 1 kHz man.
LW	144 - 288 kHz(2083 - 1042 m)	grid:1kHz auto/man.

Note: no LW in 'USA' wave band mode

IF (FM / AM):	10.7 MHz
Tuning system:	PLL quartz digital tuning
Tune search time:	FM: 12 seconds / MW/LW: 16 seconds
- 3 dB:	5.62 µV
FM sens. 30 dB S/N:	≤ 5 µV
MW sens. 26 dB S/N:	≤ 56.2 µV
LW sens. 26 dB S/N:	≤ 126 µV
SNR FM:	≥ 50 dB
SNR AM:	≥ 45 dB

CDM9 CD PLAYER

Frequency response:	30 - 16,000 Hz
SNR:	≥ 75 dB
Distortion:	0.5% at 1 kHz
Channel crosstalk:	-30 dB at 1 kHz

TECHNICAL DATA (cont'd)

AMPLIFIER

Output:	4 x 7 W (4-ch.) / 2 x 20 W (2-ch.)
Bass:	+/- 12 dB (100 Hz)
Treble:	+/- 12 dB (10 kHz)
Channel separation:	> 40 dB
Line out:	500 mV ± 2 dB
Loudness:	+10 dB at 100 Hz / +6 dB at 10 kHz

FUNCTION DIFFERENCES OVERVIEW

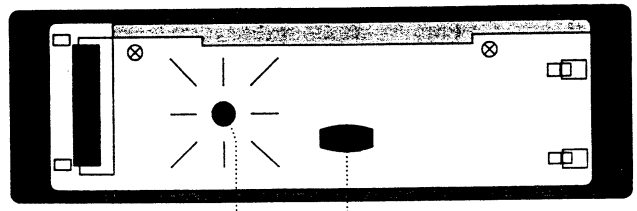
Function	DC902/00	DC902/10	DC922/00	DC922/10
FM wave band	Y	Y	Y	Y
MW wave band	N	Y	Y	Y
LW wave band	N	N	Y	N
Stereo / Mono switch	Auto	Y	Auto	Y
Mute switch	N	N	N	Y
Line out	N	2 ch.	2 ch.	4 ch.
Traffic Announcement	Y	N	Y	N
Wave band scan	N	Y	N	Y
RDS	Y	N	Y	N
AF	N	N	Y	N
PTY function	N	N	Y	N
Illumination colour	OR	GR	OR	GR

Y=inserted; N=not inserted; OR=orange; GR=green

The DC922/80 is similar to the DC922/00, with green lighting instead of orange.

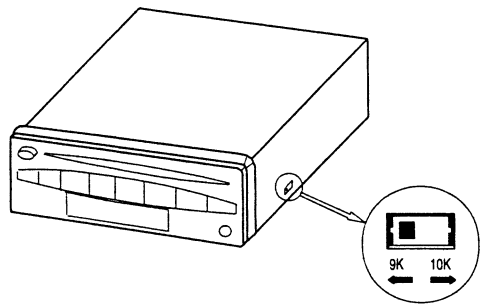
WARNING LED

When the front detach unit is removed, the red LED flashes to indicate that the set is protected. See figure below.



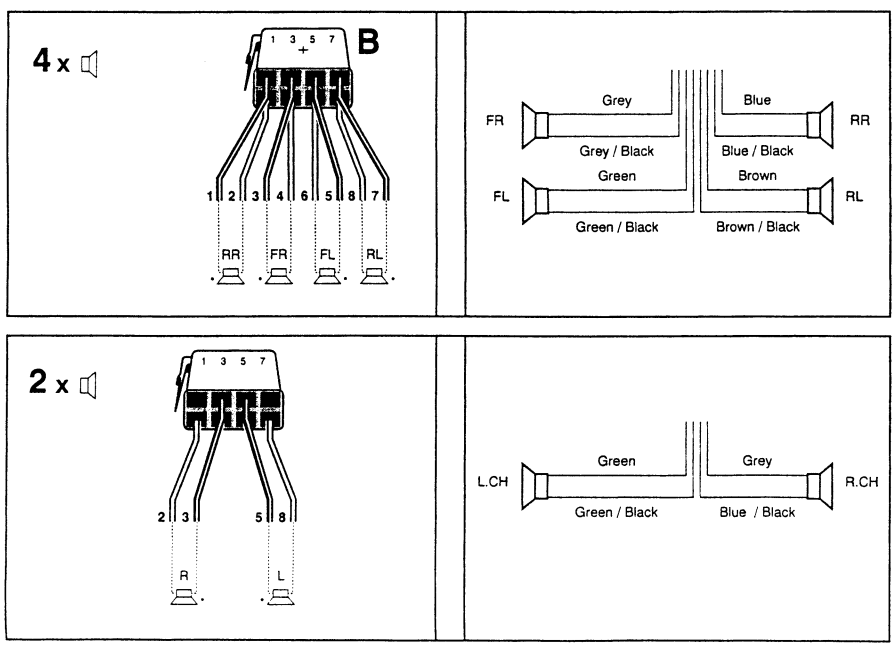
EUROPE / USA WAVE BAND SWITCH

With this set it is possible to select either the European or USA wave bands.
This can be done by setting the '9kHz/10kHz' switch in the right position.
See figure below.
When the '9kHz' position is selected, then the European wave bands are selected. In the '10kHz' position, the USA wave bands are selected.
Refer to the 'Technical specifications' part for an exact overview of frequency ranges and -steps (grid).



SPEAKER CONNECTIONS

Depending on either 2- or 4-channel operation the speakers must be connected to the '**B**' connector of the wire assy as shown in the figure below.



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DC902 CONTROLS (continued)

Function:

Release front detach unit

UP key:

Radio operation:	Increase frequency
Radio PTY operation:	Select program type
CD operation - short press:	Next track
CD operation - long press:	Search forward
In combination with DOWN key:	Toggle between AUTO/MANUAL tuning
Initializing mode:	Select parameter

DOWN key:

Radio operation:	Decrease frequency
Radio PTY operation:	Select program type
CD operation - short press:	Previous track
CD operation - long press:	Search backward
In combination with UP key:	Toggle between AUTO/MANUAL tuning
Initializing mode:	Select parameter

Auto STore - store automatically 6 strongest stations on F(M)3 or MW2/AM2 wave band (*note: MW2/AM2 only for DC902/10*)

Traffic Announcement (TA) (For DC902/00):
Short press: TA on/off
Long press: Regional program reception on/off;
Scan (*Radio operation*) on/off (For DC902/10)
(during scan each station is heard for 10 seconds)

Increase Volume, Bass or Treble, Balance to Right and Fader to Front

Decrease Volume, Bass or Treble, Balance to Left and Fader to Rear

Short press:	Select audio function (Volume, Bass, Treble, Balance or Fader)
Long press:	Select 'Initializing mode'

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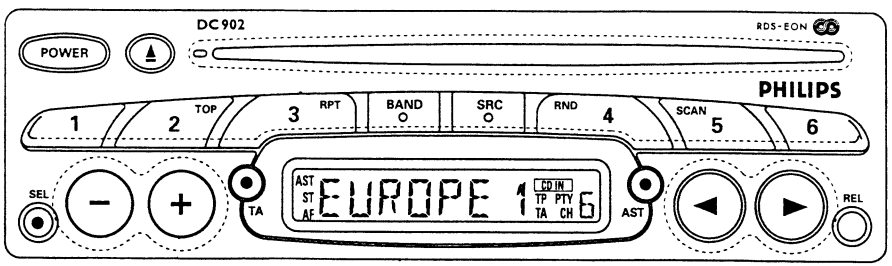
DC902 FRONT

(Note: The DC902/00 front is shown in the figure)

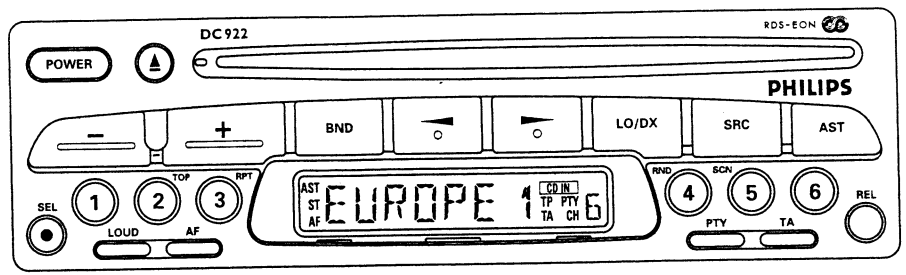


DC902 CONTROLS

	Function:
POWER	On/Off (push)
⏏	CD eject button
	CD opening indicator
1 2 TOP 3 RPT	Preset buttons 1..3:
	Radio operation short press: Select station presets 1..3 *Radio operation long press:* Store station presets 1..3 *CD operation:* Preset 2: Top (First track) select Preset 3: Repeat track on/off
BAND	*Radio operation:* Select wave band *Initializing mode:* 2 channel mode <> 4 channel mode; Loudness off <> Loudness on; TA volume level: -2..-1..0..+1..+2
SRC	Select source (Radio / CD operation)
4 RND 5 SCAN 6	Preset buttons 4..6:
	Radio operation - short press: Select station presets 4..6 *Radio operation - long press:* Store station presets 4..6 *CD operation:* Preset 4 - Random (shuffle) mode on/off Preset 5 - Scan on/off

DC922 FRONT

(Note: The DC922/00/80 front is shown in the figure)



DC922 CONTROLS

	Function:
POWER	On/Off (push)
–	Decrease Volume, Bass or Treble, Balance to Left and Fader to Rear
⏏	CD eject button
	CD opening indicator
+	Increase Volume, Bass or Treble, Balance to Right and Fader to Front
BND	*Radio operation:* Select wave band *Initializing mode:* 2 channel mode <> 4 channel mode; Loudness off <> Loudness on; TA volume level: -2..-1..0..+1..+2
◁	*Radio operation:* Decrease frequency *Radio PTY operation:* Select program type *CD operation - short press:* Previous track *CD operation - long press:* Search backward *In combination with ▷ key:* Toggle between AUTO/MANUAL tuning *Initializing mode:* Select parameter
▷	*Radio operation:* Increase frequency *Radio PTY operation:* Select program type *CD operation - short press:* Next track *CD operation - long press:* Search forward *In combination with ◁ key:* Toggle between AUTO/MANUAL tuning *Initializing mode:* Select parameter
LO/DX	Select sensitivity between LOcal and Distant broadcasting stations

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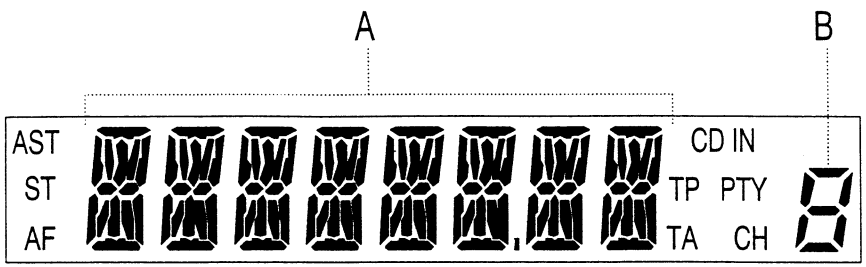
	Function:
SRC	Select source (Radio / CD operation)
AST	Auto STore - store automatically 6 strongest stations on F(M)3 or MW2/AM2 wave band
REL	Release front detach unit
RND SCN	Preset buttons 4..6: *Radio operation - short press:* Select station presets 4..6 *Radio operation - long press:* Store station presets 4..6 *CD operation:* Preset 4 - Random (shuffle) mode on/off Preset 5 - Scan on/off
PTY SCAN	Program TYpe (PTY) (For DC922/00/80): *Short press:* Select or leave PTY mode *Long press:* Search for PTY station; Scan (*Radio operation*) on/off (For DC922/10) (during scan each station is heard for 10 seconds)
TA ST/MO	Traffic Announcement (TA) (For DC922/00/80): *Short press:* TA on/off *Long press:* Regional program reception on/off; STereo / MOno (For DC922/10)
TOP RPT	Preset buttons 1..3: *Radio operation short press:* Select station presets 1..3 *Radio operation long press:* Store station presets 1..3 *CD operation:* Preset 2: Top (First track) select Preset 3: Repeat track on/off
AF MUTE	Search for Alternative Frequency (For DC922/00/80); Mute (For DC922/10)
LOUD	*Short press:* Loudness on/off *Long press:* Reset Bass, Treble, Balance and Fader in their centre position
SEL	*Short press:* Select audio function (Volume, Bass, Treble, Balance or Fader) *Long press:* Select 'Initializing mode'

DISPLAY PART (refer to figure):	MEANING:	MODE:
REG ON	Regional program reception enabled	RADIO
REG OFF	Regional program reception disabled	
STEREO	Stereo reception enabled	RADIO / FM
MONO	Mono reception enabled (*Note: only for non-RDS sets*)	
BASS + 12	Bass boost of +12 dB	ADJUST
TREB — 6	Treble reduction of -6 dB	
TREB 0	Treble at normal level	
BAL 0 — —	Right channel off	ADJUST
BAL 0 — 10	Right channel -10 dB with respect to left channel	
BAL 0 0	Balance in centre position	
BAL — 8 0	Left channel -8 dB with respect to right channel	
BAL — — 0	Left channel off	
FDR 0 — —	Front channel off	ADJUST
FDR 0 — 6	Front channel -6 dB with respect to rear channel	
FDR 0 0	Fader in centre position	
FDR — 12 0	Rear channel -12 dB with respect to front channel	
FDR — — 0	Rear channel off	
RESET	Bass, treble, balance and fader in centre position	ADJUST
LOUD ON	Loudness switched on	ADJUST INIT
LOUD OFF	Loudness switched off	ADJUST INIT
1 0.06	Track 1 reproduced; elapsed time of 6 seconds	CD
SCAN 3	Scanning mode enabled; track 3 scanned	
REP 4	Track 4 repeated	
RND 1	Random (shuffle) play enabled; track 1 reproduced	
CD ERROR	CD inserted in the wrong way or CD is damaged or dirty	CD
TOO HOT	Temperature inside set has exceeded its maximum allowed value	
4 SPKRS	4-channel mode selected	INIT
2 SPKRS	2-channel mode selected	
TA LVL 0	TA volume level normal level (range -2...+2)	INIT
B	7-segment digit indicating preset station number (1..6) (together with **CH** indication)	RADIO

DISPLAY INDICATIONS



DISPLAY PART (refer to figure):	MEANING:	MODE:
A (Alpha-numeric display):		
Note: all numbers, values and station names shown here are examples !		
LW 162	LW band (Europe wave band) selected; reception freq. 162 kHz	RADIO
MW1 612	MW band 1 (Europe wave band) selected; reception freq. 612 kHz	
MW2 1440	MW band 2 (Europe wave band) selected; reception freq. 1440 kHz	
AM1 611	AM (MW) band 1 (USA wave band) selected; reception freq. 611 kHz	
AM2 1436	AM (MW) band 2 (USA wave band) selected; reception freq. 1436 kHz	
F3 87.5	FM band 3 selected; reception freq. 87.5 MHz	
RADIO 2	Station name (shown in RDS mode)	RADIO
STORE	Stations stored (in AST mode) on F3 or MW2/AM2 band	RADIO / AST
AUTO	Auto (search) tuning	RADIO
MANUAL	Manual tuning	
LOCAL	Only strongest (local) stations reception (lower sensitivity)	RADIO
DX	Also weaker (distant) stations reception (higher sensitivity)	
NEWS	News program type selected	RADIO / PTY
AFFAIRS	'Current affairs' program type selected	
INFO	Information program type selected	
SPORT	Sport program type selected	
EDUCATE	Education program type selected	
DRAMA	'Drama' program type selected	
CULTURE	Culture program type selected	
SCIENCE	Scientific program type selected	
VARIED	Variety program type selected	
POP M	Pop music program type selected	
ROCK M	Rock music program type selected	
MOR M	'Middle-of-the-Road' music program type selected	
LIGHT M	Light classical music program type selected	
CLASSIC	'Serious' classical music program selected	
OTHER M	'Other music' program type selected	
NO PTY	Station does not broadcast program type information	RADIO / PTY
ALARM	Emergency message broadcasted by PTY station	
TRAFFIC	(In combination with station name) AF station broadcasts TA info	

DISPLAY INDICATIONS (continued)

DISPLAY PART (refer to figure):	MEANING:	MODE:
AST	Auto-STore mode; 6 strongest stations stored automatically on F3 or MW2/AM2 band	RADIO
ST	Stereo reception	RADIO / FM
AF	Alternative Frequency station (with the best reception) selected	RADIO / RDS
CD IN	CD is inserted	
TP	Traffic Program station received	RADIO
TP (*blinking*)	Received station does not broadcast traffic info or is too weak (when TA mode is enabled)	
PTY	Program TYpe station reception; Program type can be selected; display shows selected program type	RADIO / PTY
TA	Set is ready to receive Traffic Announcements	RADIO
	CD playback is interrupted during TA reception	CD
CH	(In combination with digit 1..6) Preset station selected	RADIO

NOTES:

- For informations about how to use the set see the 'Operating Instructions'.
- The handling of flat pack ICs is described in Service Information A86-100, dated 1986-07-01.
- Switch off power supply before connecting or disconnecting the CD deck.
- Do not try to load or eject a CD when the CD deck is in upside-down position.
- Extension cables for front unit and CD deck are NOT available as service parts.
- For more information about the RDS feature use the 'computer based training course RDS', which is available at Philips Consumer Service.
  Contact: Philips Consumer Electronics
  Service Dept. B.G. Audio
  Building SFF3
  NL 5600 MD Eindhoven

  tlx routing indicator: NLMEVAB

  FAX: + 31 40 273 40 50

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CHECKS

Notes:

- *See for more information the 'General Alignment Procedure' manual*
- All measurements have to be carried out at pins 1, 3, 5 and 7 of cable assy connector 'B'

Check	Band	⊛—	◈	℄	Settings	📻
30dB SNR	FM	98.0MHz; 5µV Δf=22.5kHz f_{mod}=1kHz 98.0MHz; 5µV Δf=22.5kHz without mod.	◈	▭	◿	0dB (775mV) ≤ -30dB
26dB SNR	MW	1053kHz; 56.2µV f_{mod}=400Hz; 30% 1053kHz; 56.2µV without mod.	◈	▭	◿	0dB (775mV) ≤ -26dB
26dB SNR	LW	206kHz; 126µV f_{mod}=400Hz; 30% 206kHz; 126µV without mod.	◈	▭	◿	0dB (775mV) ≤ -26dB
SNR FM	FM	98.0MHz; 1mV Δf=22.5kHz f_{mod}=1kHz 98.0MHz; 1mV Δf=22.5kHz without mod.	◈	▭	◿	0dB (775mV) ≤ -50dB
SNR MW	MW	1053kHz; 5mV 400Hz; 30% 1053kHz; 5mV without mod.	◈	▭	◿	0dB (775mV) ≤ -45dB
SNR LW	LW	206kHz; 5mV 400Hz; 30% 206kHz; 5mV without mod.	◈	▭	◿	0dB (775mV) ≤ -45dB
α -3dB	FM	98.0MHz; 1mV Δf=22.5kHz f_{mod}=1kHz 98.0MHz; 5.62mV Δf=22.5kHz f_{mod}=1kHz	◈	▭	◿	0dB (775mV) -3dB

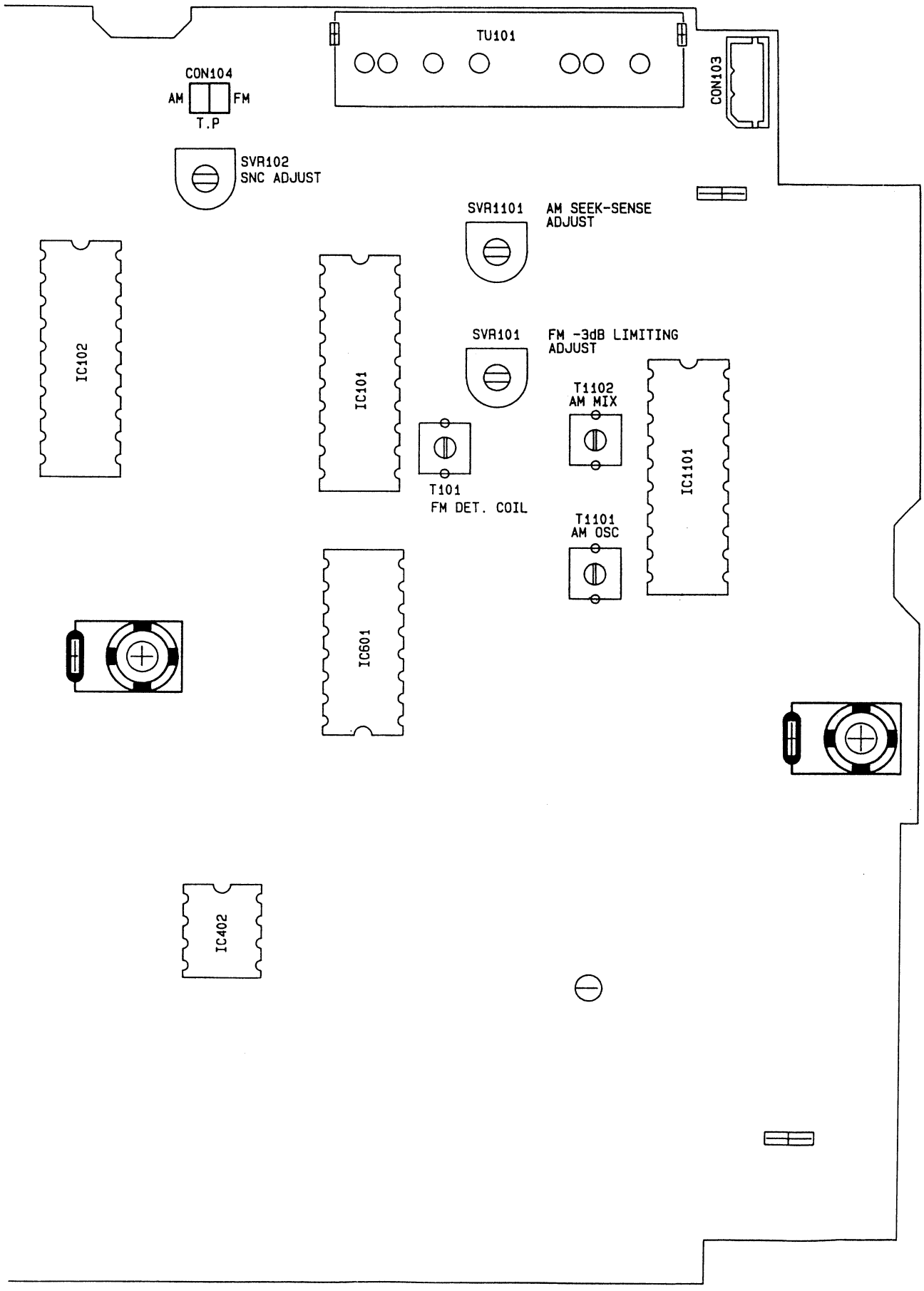
Notes:

- *For adjustments and checks use the dummy aerial as shown in the figure below.*
- Refer to the location of the adjustment controls on this page

Adjustment	Band	⊛—	◈	℄	◇	📻
α -3dB	FM	98.0MHz; 1mV Δf=22.5kHz f_{mod}=1kHz 98.0MHz; 7-10µV Δf=22.5kHz	◈	SVR101	Connector block (B) pins 1,3,5,7	775mV (0dB) Reference level (dB) Reference level -3dB
Channel separation / SDS (SNC)	FM	98.0MHz; 1mV Δf=22.5kHz f_{mod}=400Hz (Stereo) Pilot 10% 98.0MHz; 150µV Δf=22.5kHz f_{mod}=1kHz (Left ch. only) Pilot 10%	◈	SVR102	Connector block (B) pins 1,3,5,7 Connector block (B) pins 1,3 (R)	775mV (0dB) ≤ 10dB with resp. to L
Search sensitivity	AM	999kHz; 56.2µV	◈	SVR1101	Conn.104 - left pin	1.6VDC
FM detect	FM	98.0MHz; 10µV Δf=75.0kHz f_{mod}=1kHz	◈	T101	Connector block (B) pins 1,3,5,7	Adjust for minimum THD

Check -3dB again and adjust if necessary !
Do NOT adjust coils T1101 and T1102 (AM part) because they are correctly pre-adjusted by supplier !

(Part of main PCB)



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IC PIN ALLOCATIONS AND FUNCTIONS

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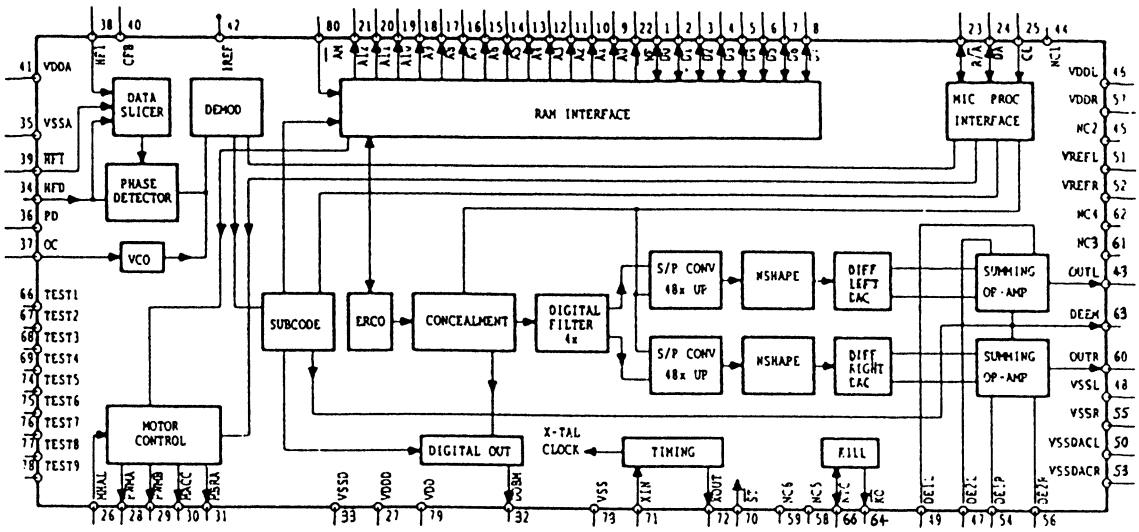

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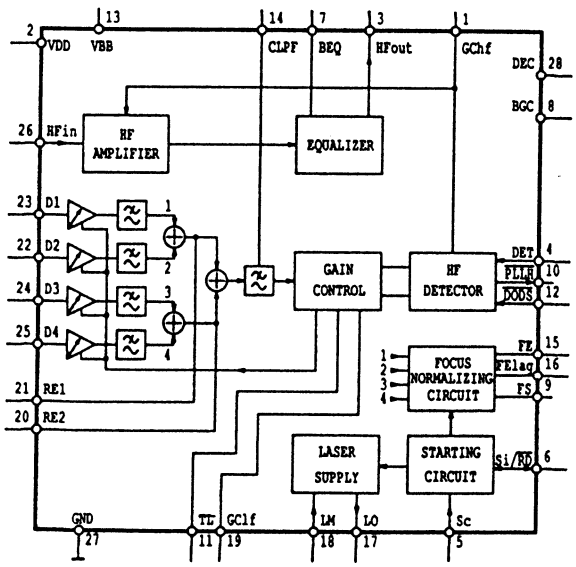

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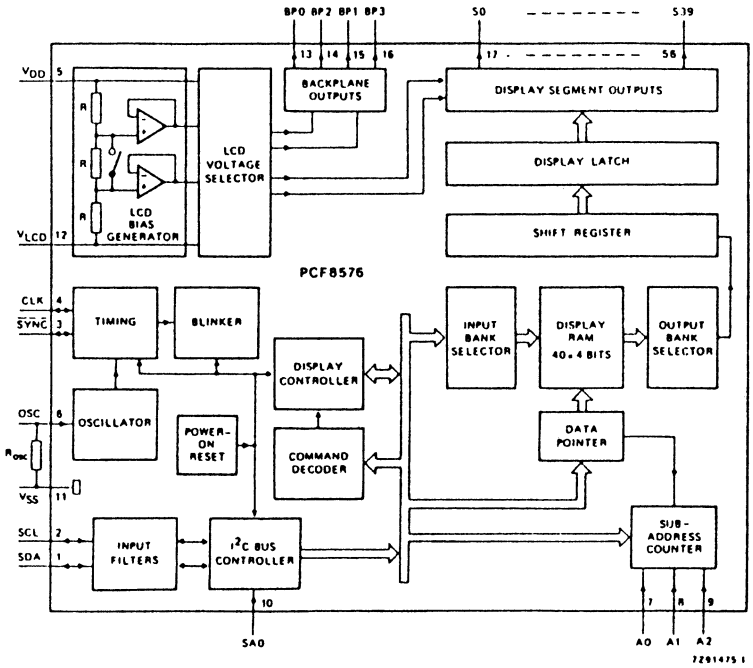

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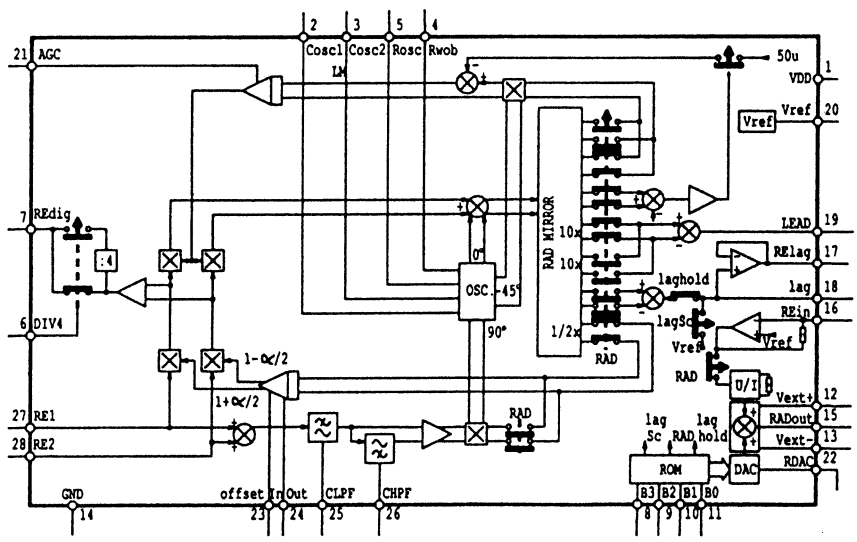

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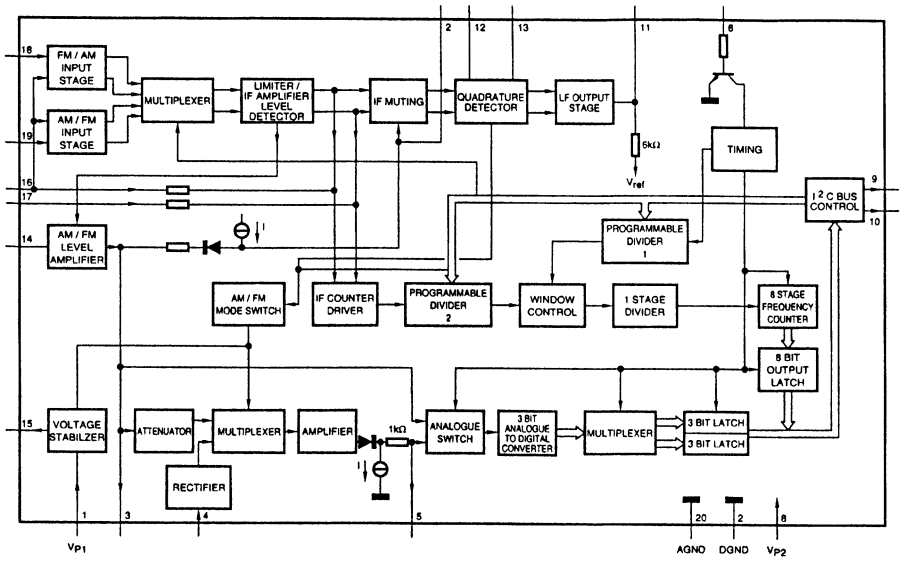

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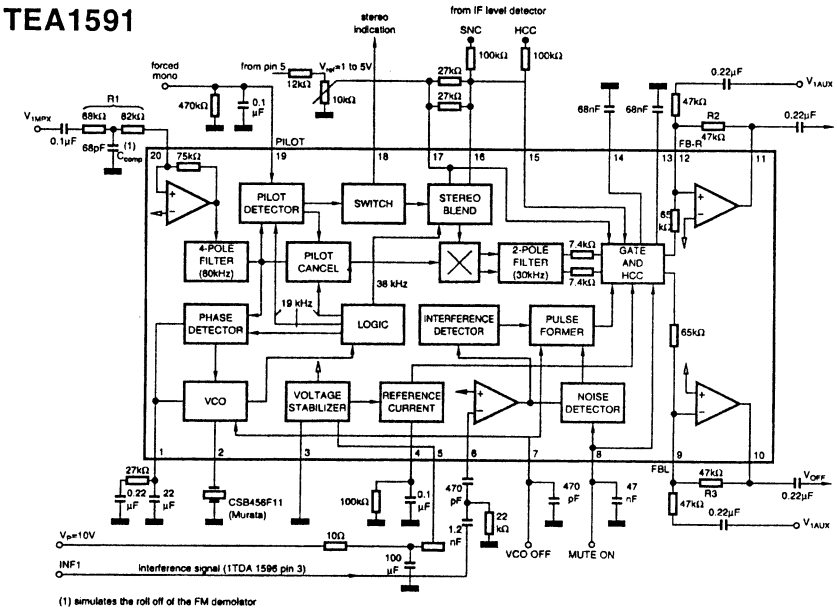
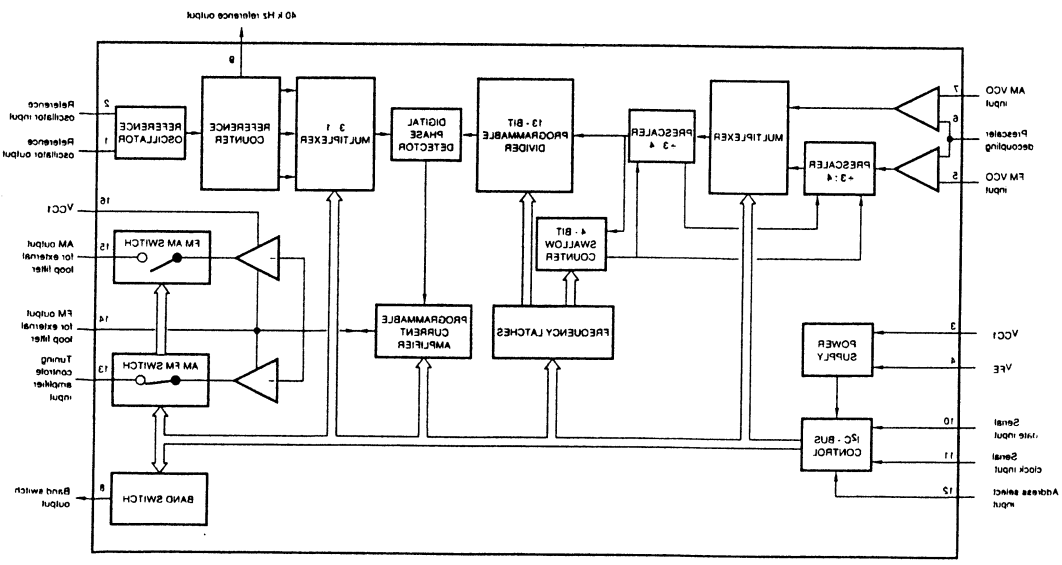


(1) simulates the roll off of the FM demodulator

TSA6057T



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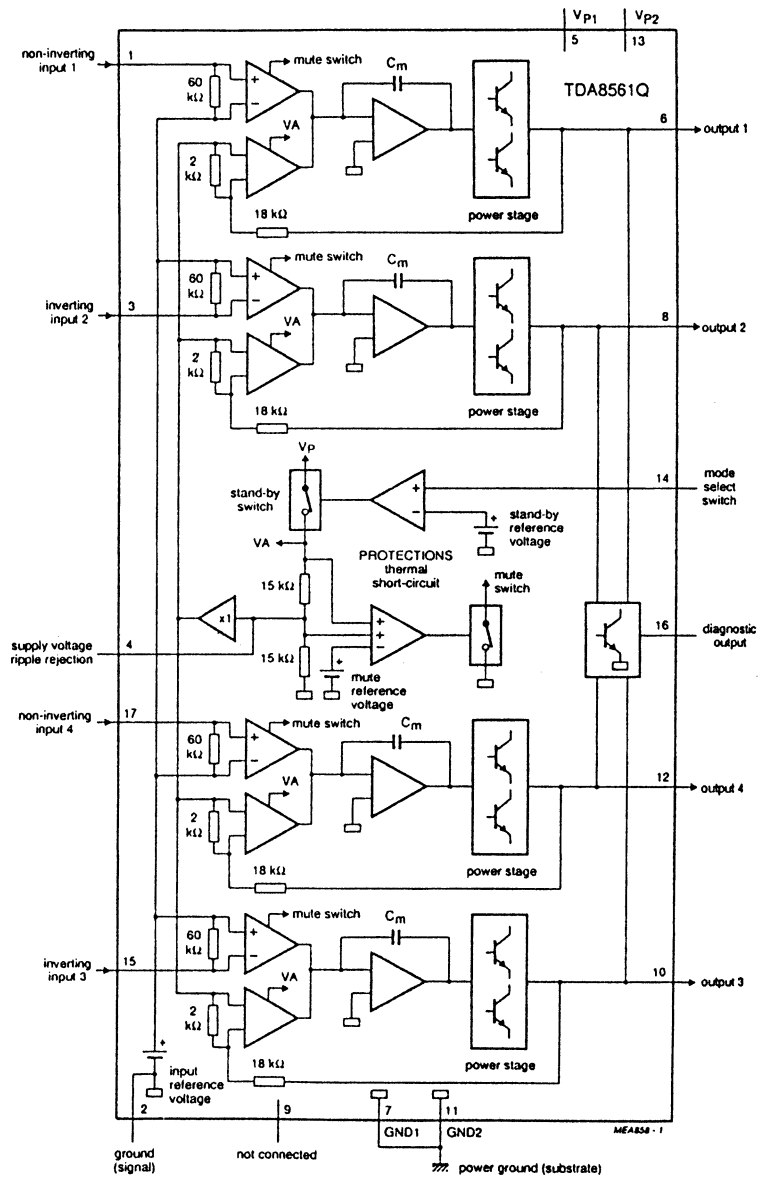
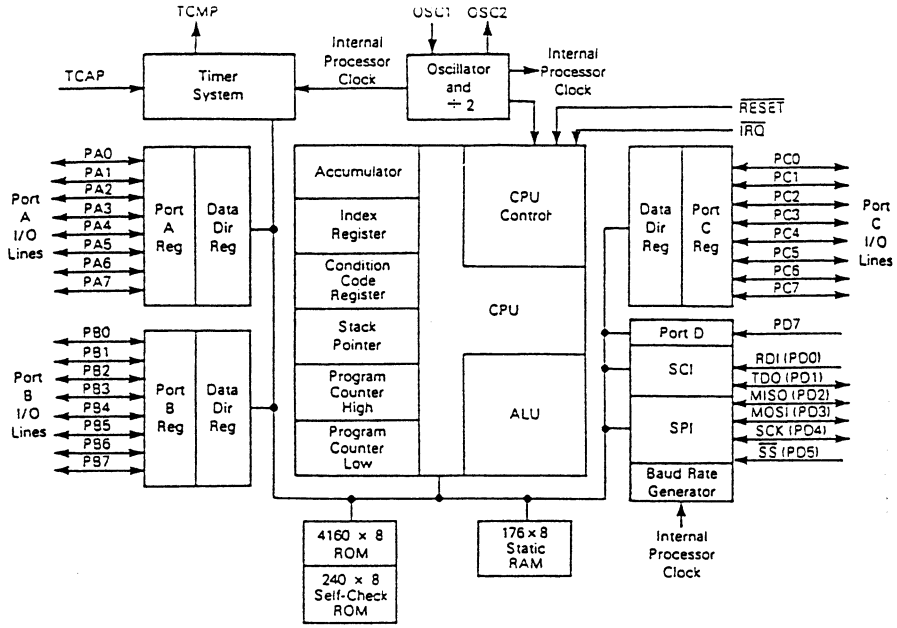

TDA8561Q
V_{P1}
V_{P2}
5
13
non-inverting input 1
1
mute switch
C_m
60 kΩ
VA
2 kΩ
18 kΩ
power stage
6
output 1
inverting input 2
3
8
output 2
V_P
stand-by switch
14
mode select switch
stand-by reference voltage
PROTECTIONS
thermal
short-circuit
mute switch
15 kΩ
x1
supply voltage ripple rejection
4
mute reference voltage
16
diagnostic output
non-inverting input 4
17
12
output 4
inverting input 3
15
10
output 3
input reference voltage
2
9
7
11
GND1
GND2
MEA858 - 1
ground (signal)
not connected
power ground (substrate)



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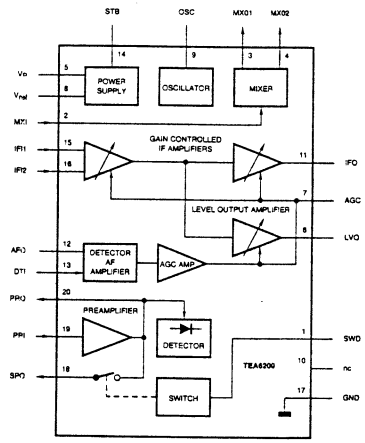
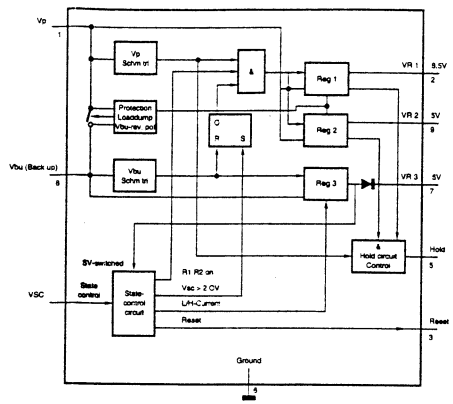


TDA3602



CL 56600011_015.AI
.011295

VOLTAGE MEASUREMENT TABLES

1. TR / FET

TR NO / TERMINAL	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	Q201	Q202	Q501	Q502	Q503	Q504	Q505	Q506	Q507	Q508	Q509	Q510	Q511	Q512	FT1101
C (D)	7.3V	1.4V	3.7V	8.3V	2.1V	0V	0V	3.0V	2.6V	0V	14.0V	0V	0V	0V	14.0V	14.0V	0V	0.3V	14.0V	0V	0.6V	0V	7.9V
B (G)	0.9V	3.1V	0V	3.7V	2.1V	2.5V	2.5V	0V	0.3V	2.5V	4.9V	0V	0V	3.8V	0V	0V	3.8V	14.0V	13.6V	0.6V	14.0V	4.9V	0V
E (S)	0V	3.7V	0V	3.1V	0V	0V	0V	0V	0V	2.6V	0V	0V	0V	0V	0.6V	0V	0V	14.0V	14.0V	0V	14.0V	4.9V	0V

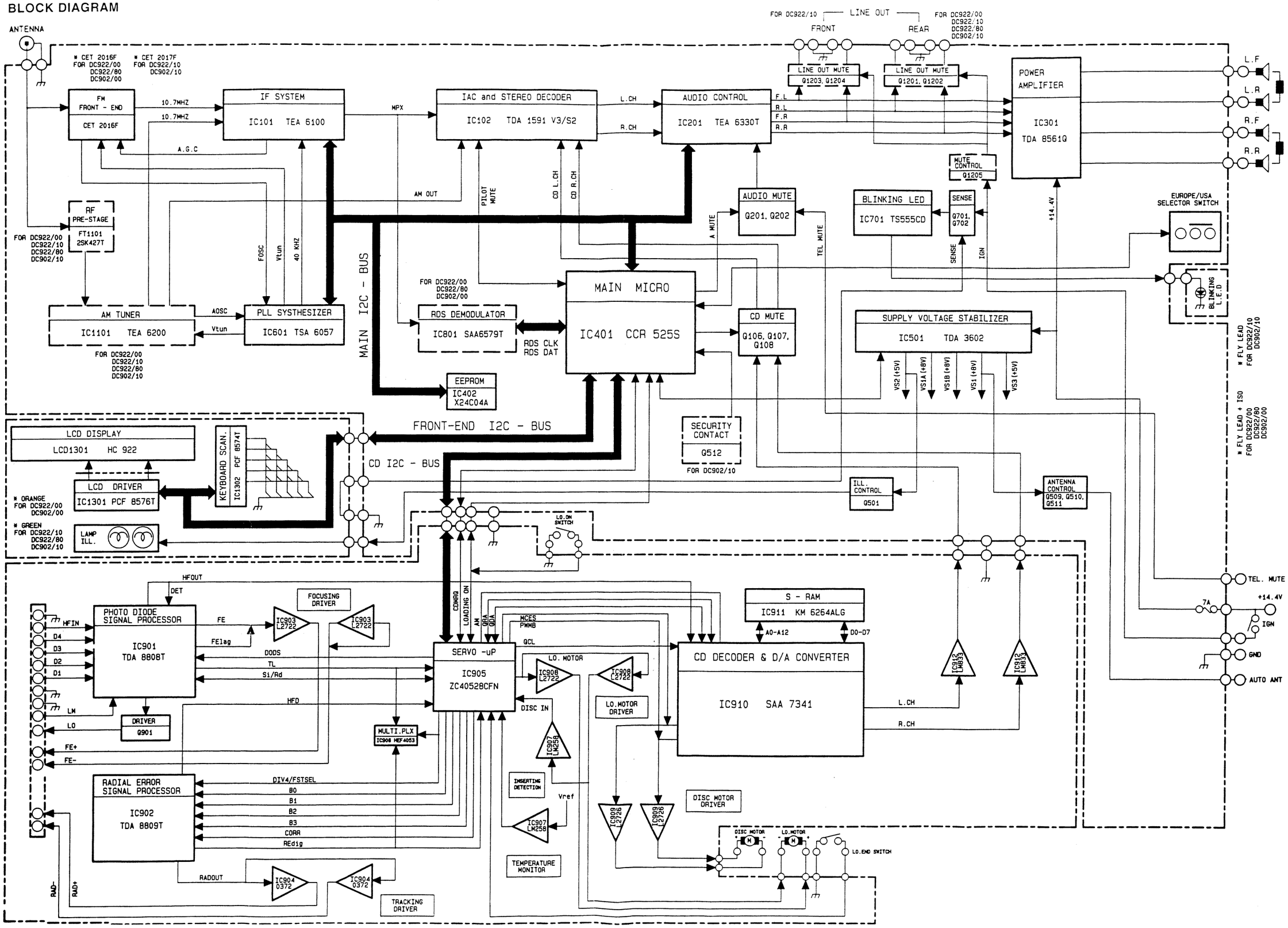
TR NO / TERMINAL	Q701	Q702	Q901	Q902	Q903	Q904	Q905	Q906	Q1201	Q1202	Q1203	Q1204	Q1205
C (D)	4.9V	0V	0.9V	0V	1.1V	0.9V	0.4V	0.4V	1.6V	1.6V	1.6V	1.6V	1.0V
B (G)	0.2V	3.0V	1.3V	5.5V	0.4V	0.4V	0.9V	0.4V	1.3V	1.3V	1.3V	1.3V	11.9V
E (S)	0V	0V	1.0V	1.0V	0.5V	0V	0.9V	0.4V	0V	0V	0V	0V	10.1V

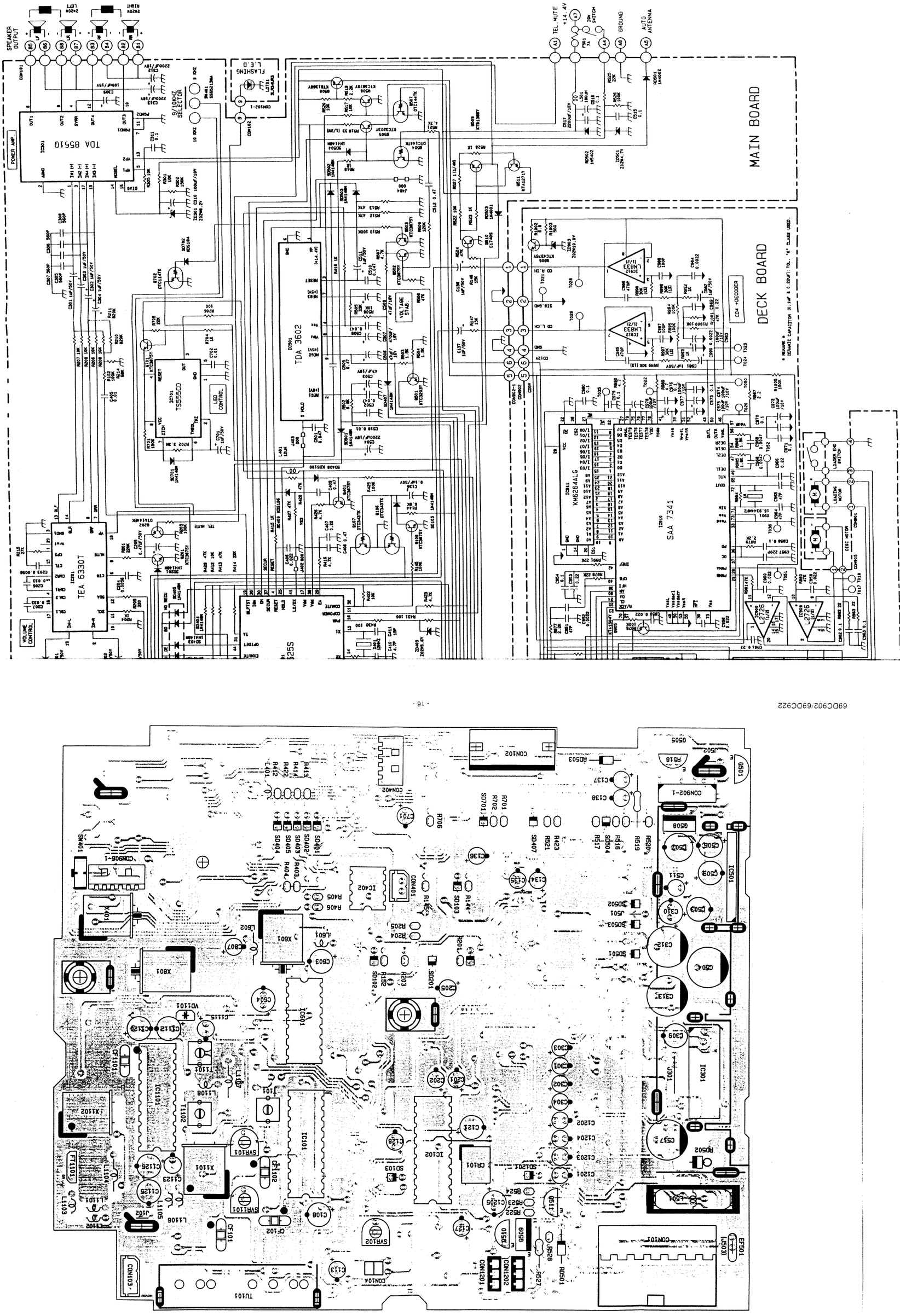
2. IC

IC NO \ PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	IC NAME
IC 101	8.1V	0.5V	3.0V	0V	0V	0V	0V	8.2V	4.3V	4.5V	0.5V	4.5V	4.5V	3.4V	4.3V	2.9V	2.9V	2.9V	2.9V	0V																						TEA 6100
IC 102	4.8V	4.3V	0V	3.0V	8.2V	2.2V	2.1V	3.1V	3.8V	3.7V	3.7V	3.8V	1.3V	1.3V	1.0V	0.7V	0.5V	0.3V	1.4V	3.0V																						TDA 1591
IC 201	6.5V	3.2V	0V	3.2V	3.2V	3.2V	2.7V	3.2V	2.6V	0V	4.9V	4.9V	3.2V	2.7V	3.2V	3.2V	3.2V	7.7V	3.2V	3.2V																						TEA 6330T
IC 301	2.1V	0V	2.1V	7.0V	1.8V	6.9V	0V	6.9V	0.3V	6.9V	0V	6.9V	14.0V	8.2V	2.1V	14.0V	2.1V																									TDA 8561Q
IC 401	0V	4.9V	4.9V	0V	4.6V	0V	0V	2.4V	4.9V	4.8V	4.4V	2.3V	0V	2.4V	2.2V	0V	4.9V	4.9V	0V	4.9V	4.9V	4.9V	4.1V	4.1V	4.9V	4.9V	1.5V	0V	4.9V	0V	4.9V	0V	4.9V	4.9V	4.9V	3.5V	0V	4.9V	0V	4.9V	CCR 525S
IC 402	0V	0V	0V	0V	4.6V	4.8V	0V	4.9V																																	X24C042P
IC 501	14.0V	8.5V	0V	0.6V	5.0V	0V	5.0V	12.3V	5.0V																																TDA 3602
IC 601	1.1V	1.1V	4.3V	0V	1.7V	1.7V	1.7V	0V	0.3V	4.6V	4.5V	0V	1.6V	2.0V	0.9V	8.3V																									TSA 6057
IC 701	0V	0V	0.2V	0V	0V	0V	0V	0V																																	TS555CD
IC 801	2.1V	2.5V	0.7V	2.3V	4.8V	0V	2.4V	2.4V	0V	0V	0V	4.8V	1.5V	2.4V	2.4V	2.4V					-																					SAA 6579T
IC 901	3.5V	4.8V	2.3V	2.1V	0V	0V	0.6V	1.2V	0V	0V	4.8V	0V	0V	3.8V	2.4V	2.4V	1.8V	0V	4.1V	3.8V	3.8V	0.9V	0.9V	0.9V	0.9V	1.4V	0V	3.5V													TDA 8808T
IC 902	4.9V	2.4V	2.4V	0V	1.2V	4.7V	0V	0V	0V	5.0V	5.0V	8.4V	0V	0V	6.3V	2.4V	2.4V	2.4V	2.4V	2.4V	3.7V	1.2V	1.7V	1.9V	4.9V	0.5V	3.8V	3.8V													TDA 8809T
IC 903	2.4V	14.0V	2.4V	0V	2.4V	2.4V	2.4V	2.4V																																	L 2722
IC 904	6.2V	14.0V	6.3V	0V	6.3V	6.3V	6.3V	6.3V																																	TCA 0372
IC 905	4.8V	0V	1.0V	5.0V	0V	0V	4.9V	0V	0V	5.0V	5.0V	2.3V	4.8V	5.0V	1.5V	0V	0V	0.5V	0V	5.0V	0V	0V	0.6V	3.6V	5.0V	0V	0V	5.0V	5.0V	4.8V	4.9V	3.9V	4.0V	4.9V	4.9V	4.8V	0V	0V	4.8V	0.2V	ZC405258CFN
IC 906	0.5V	0.5V	4.8V	4.8V	0V	0V	0V	0V	4.7V	0.5V	0.5V	0.5V	1.1V	1.1V	4.9V																											HEF4053T
IC 907	3.9V	0.6V	2.0V	0V	0.3V	3.5V	4.0V	4.9V																																	LM 258
IC 908	3.6V	14.0V	3.5V	0V	3.5V	3.5V	3.5V	3.6V																																	L 2722
IC 909	9.5V	4.9V	0V	0V	0V	0V	0V	0.4V	4.9V	4.8V	4.8V	4.9V	0.4V	0V	0V	0V	0V	0.5V	0.3V	4.9V																						L 2726
IC 910	3.8V	1.2V	3.5V	3.0V	2.0V	1.4V	1.1V	1.5V	1.8V	2.0V	1.9V	1.7V	1.6V	2.3V	2.4V	2.4V	2.4V	1.8V	1.8V	2.0V	1.8V	4.0V	1.7V	1.8V	5.0V	2.3V	2.3V	4.9V	4.9V	4.9V	4.9V	0V	0V	4.8V	0V	0V	0V	2.5V	2.4V	2.5V	SAA 7341
IC 911	1.8V	2.4V	2.4V	2.4V	2.3V	1.6V	1.7V	1.9V	2.0V	1.8V	1.7V	1.3V	1.3V	0V	3.8V	1.1V	3.4V	3.0V	2.1V	0V	1.9V	0V	1.9V	2.0V	1.7V	4.8V	4.0V	4.9V													KM 6264
IC 912	4.2V	4.2V	4.2V	0V	4.2V	4.2V	4.2V	14.0V																																	LM 833
IC 1101	6.5V	0V	7.9V	7.9V	7.9V	7.9V	0.4V	0V	0V	0V	7.4V	1.5V	5.7V	0V	0V	0V	0V	0V	0.7V	6.6V																						TEA 6200

IC NO \ PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	IC NAME
IC 101																																									TEA 6100
IC 102																																									TDA 1591
IC 201																																									TEA 6330T
IC 301																																									TDA 8561Q
IC 401	0V	0V	0V	4.9V																																						CCR 525S
IC 402																																									X24C042P
IC 501																																									TDA 3602
IC 601																																									TSA 6057
IC 701																																									TS555CD
IC 801																																									SAA 6579T
IC 901																																									TDA 8808T
IC 902																																									TDA 8809T
IC 903																																									L 2722
IC 904																																									TCA 0372
IC 905	4.8V	2.1V	2.6V	5.0V																																					ZC405258CFN
IC 906																																									HEF4053T
IC 907																																									LM 258
IC 908																																									L 2722
IC 909																																									L 2726
IC 910	5.0V	1.5V	1.3V	1.1V	1.0V	4.9V	2.4V	0V	1.0V	0V	2.4V	2.4V	0V	1.9V	0V	2.4V	4.9V	1.9V	0.1V	1.0V	1.8V	1.8V	0V	4.9V	4.9V	2.4V	2.3V	2.3V	2.3V	5.0V	2.0V	1.8V	0V	0.4V	4.9V	4.9V	4.9V	4.9V	4.9V	0V	SAA 7341
IC 911																																									KM 6264
IC 912																																									LM 833
IC 1101																																									TEA 6200

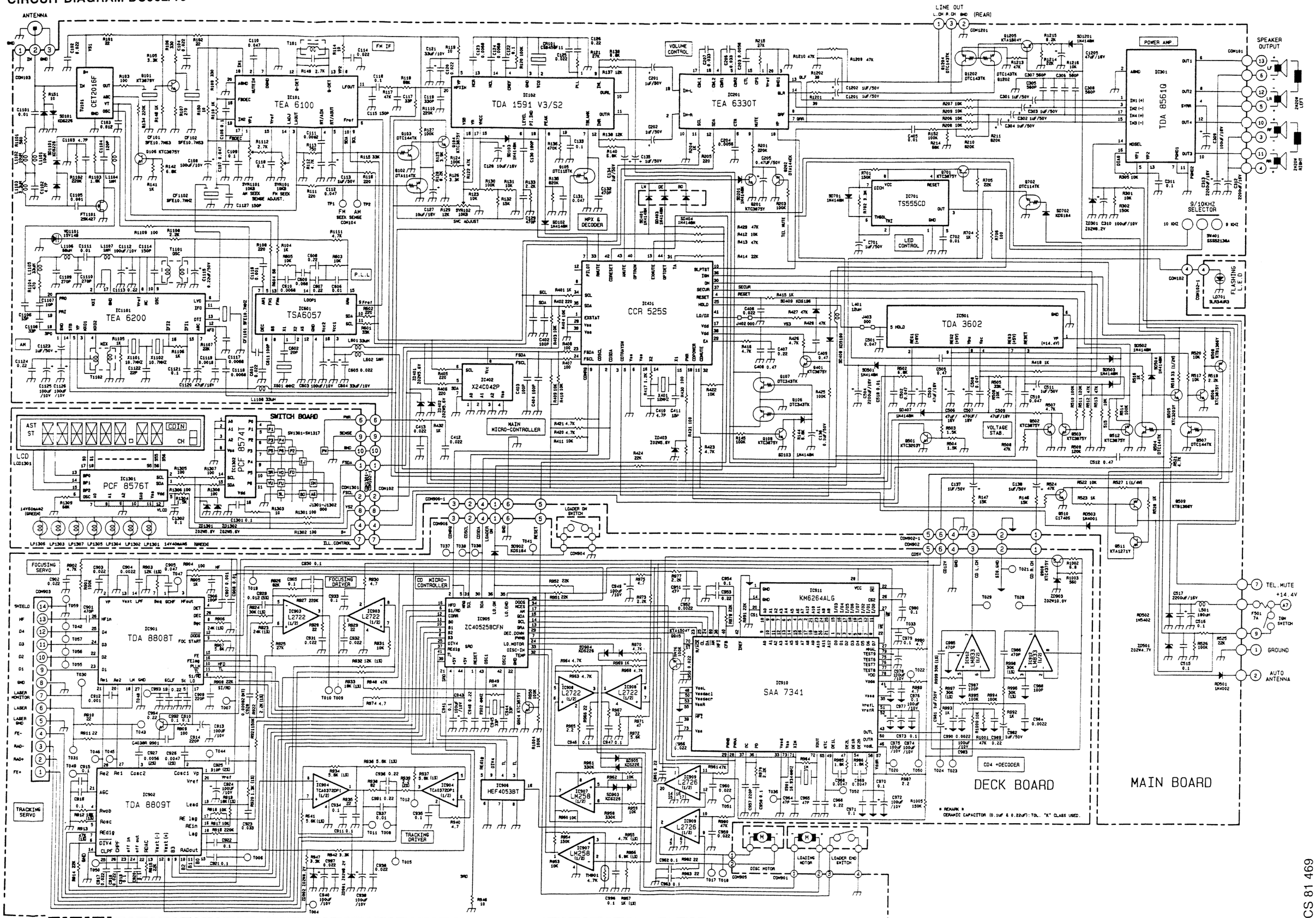
BLOCK DIAGRAM



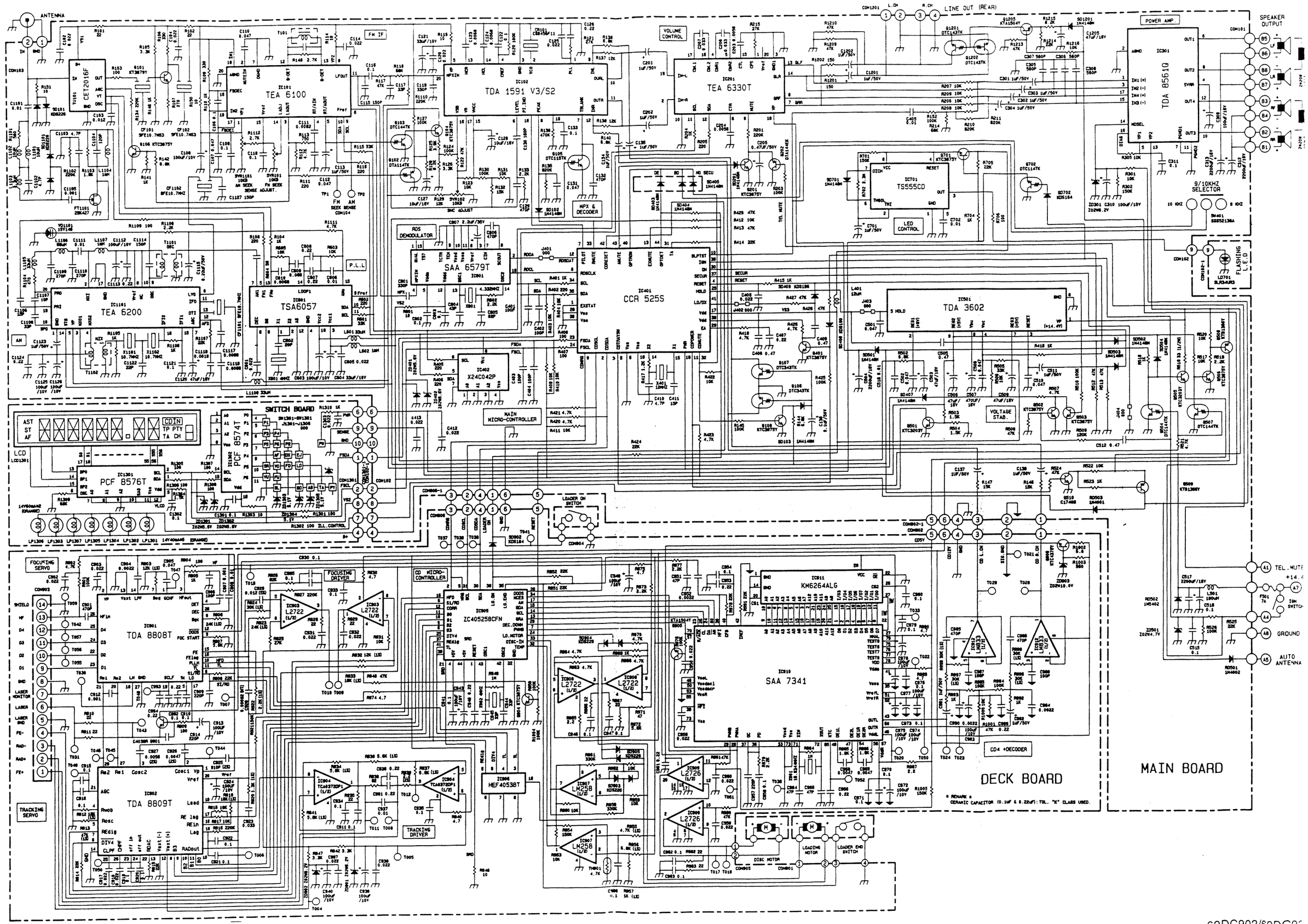


MAIN PCB LAYOUT COMPONENT SIDE

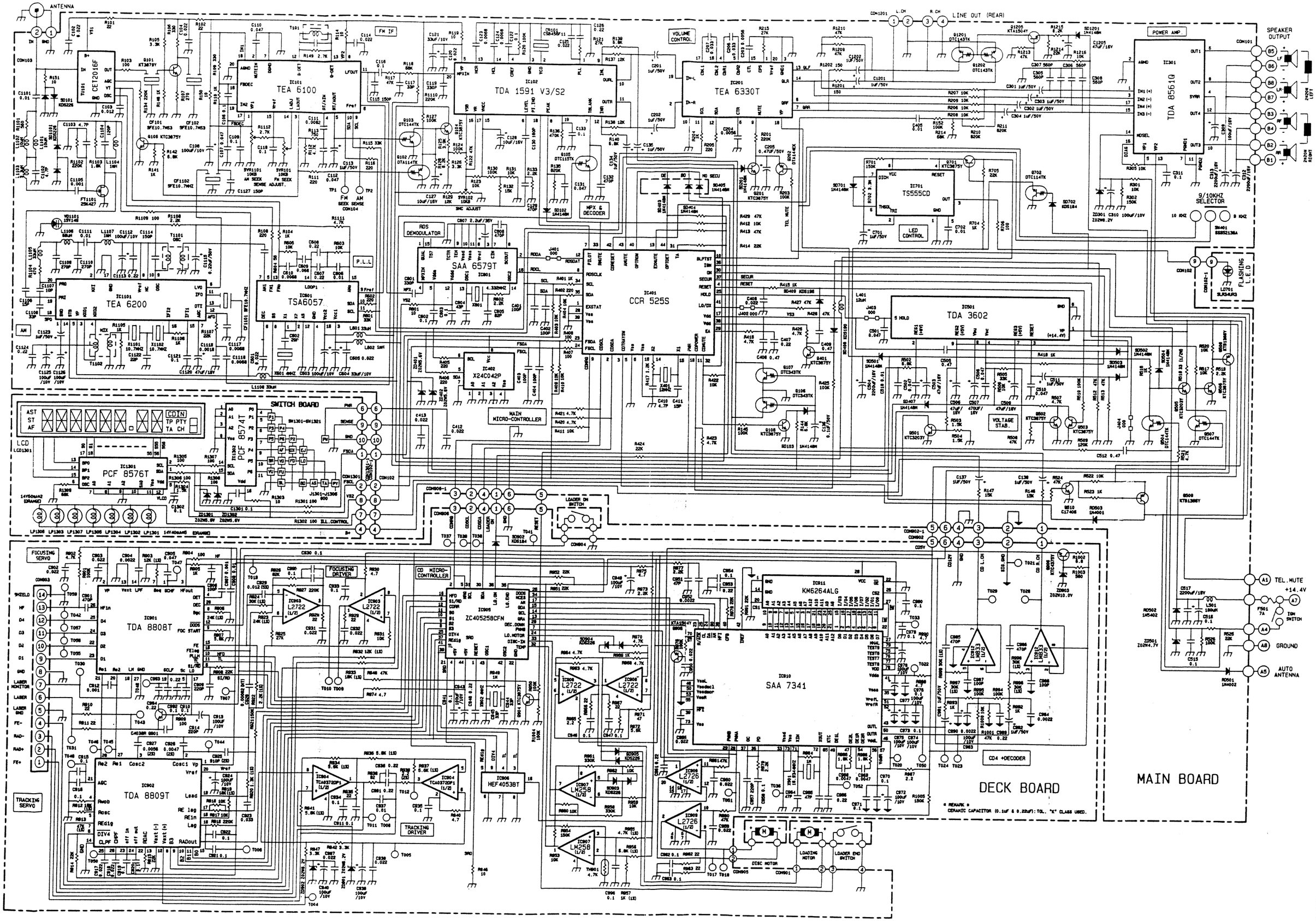
CIRCUIT DIAGRAM DC902/10



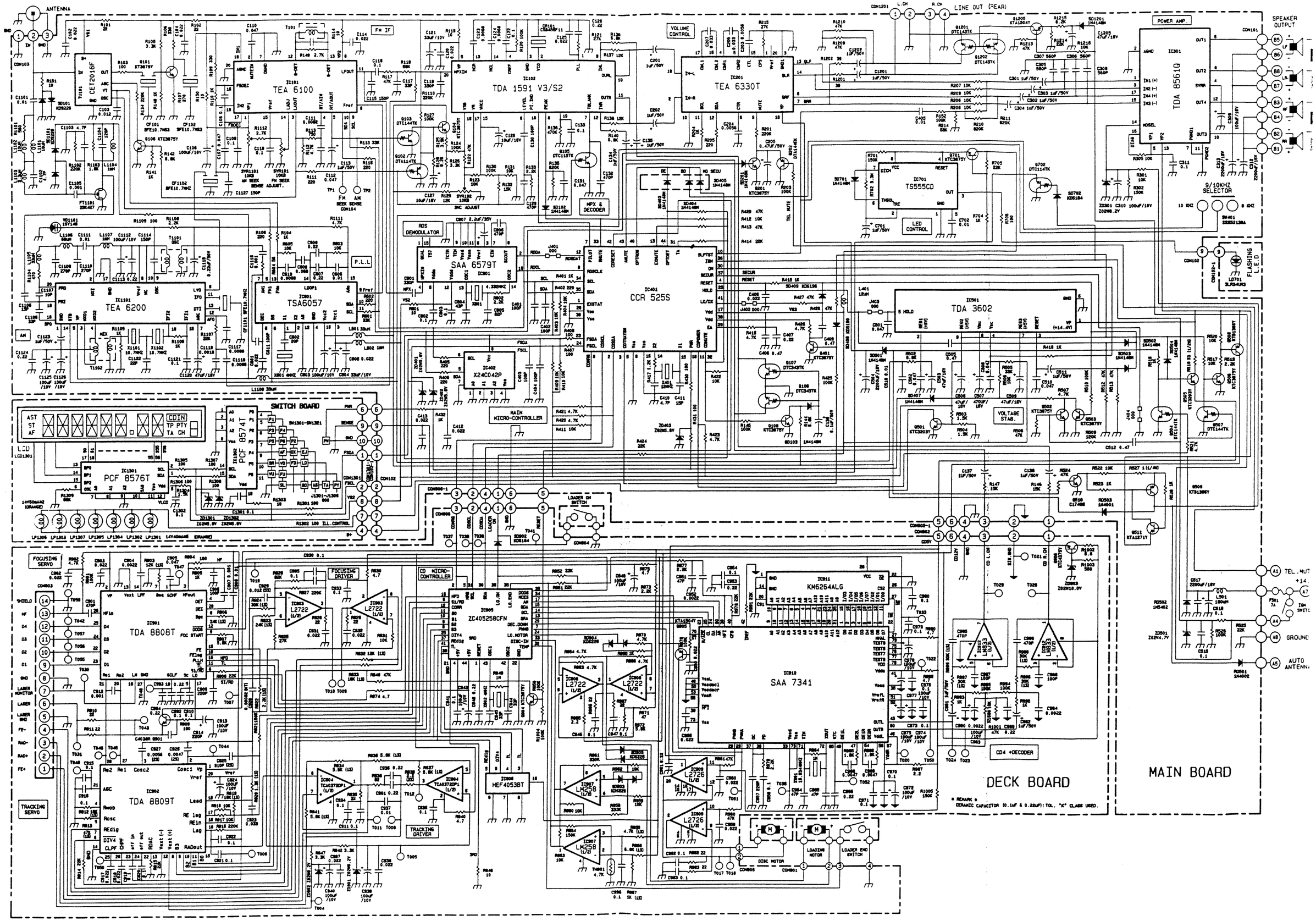
CIRCUIT DIAGRAM DC922/00 - 1ST VERSION



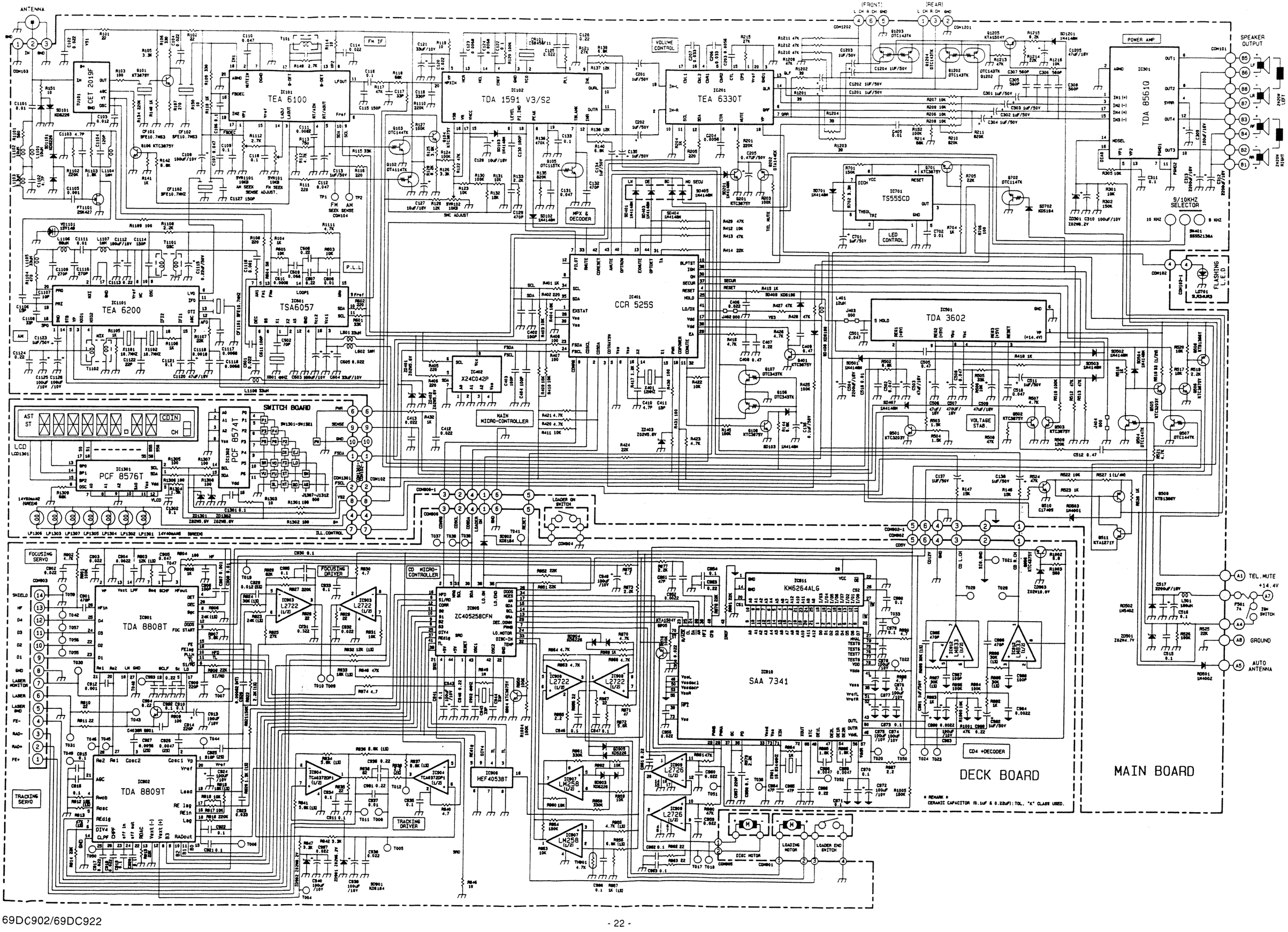
CIRCUIT DIAGRAM DC922/00 - 2ND VERSION



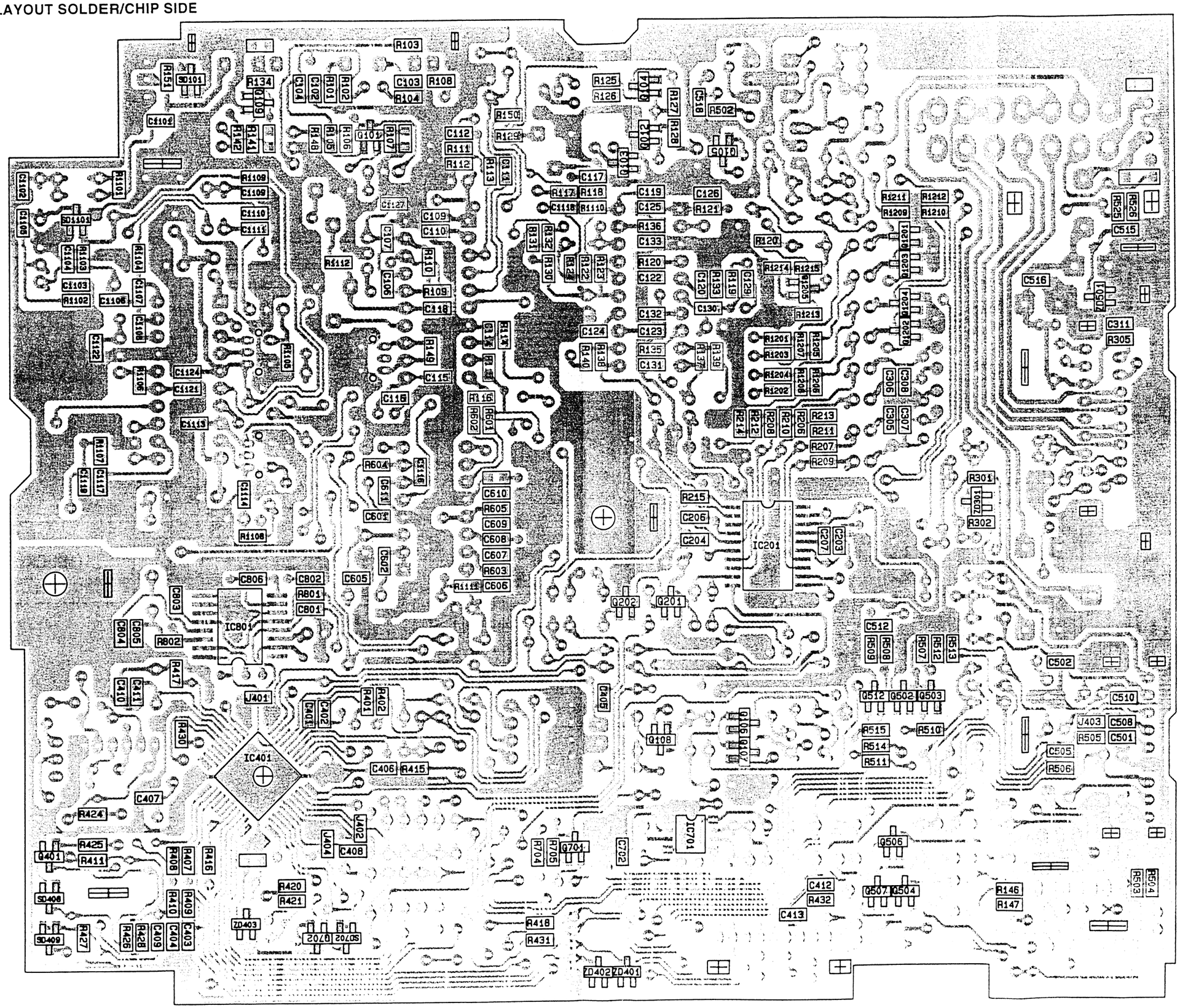
CIRCUIT DIAGRAM DC922/00 - 3RD VERSION



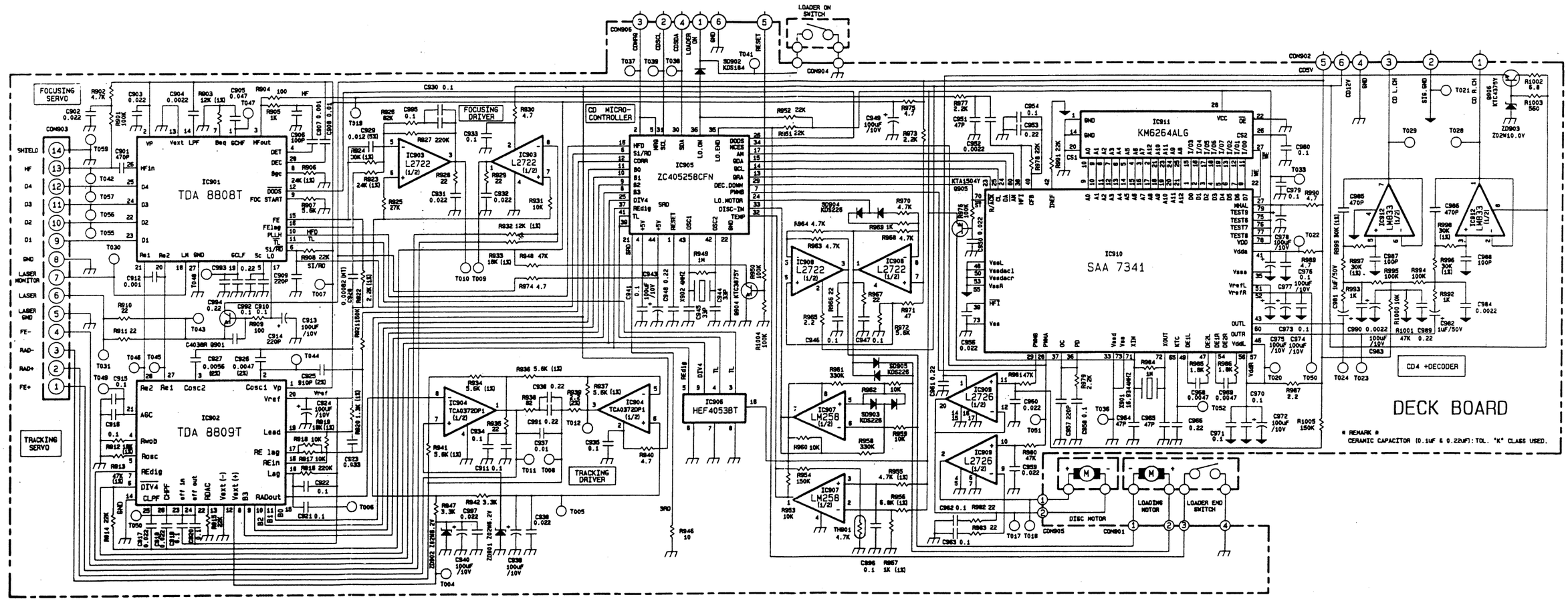
CIRCUIT DIAGRAM DC922/10

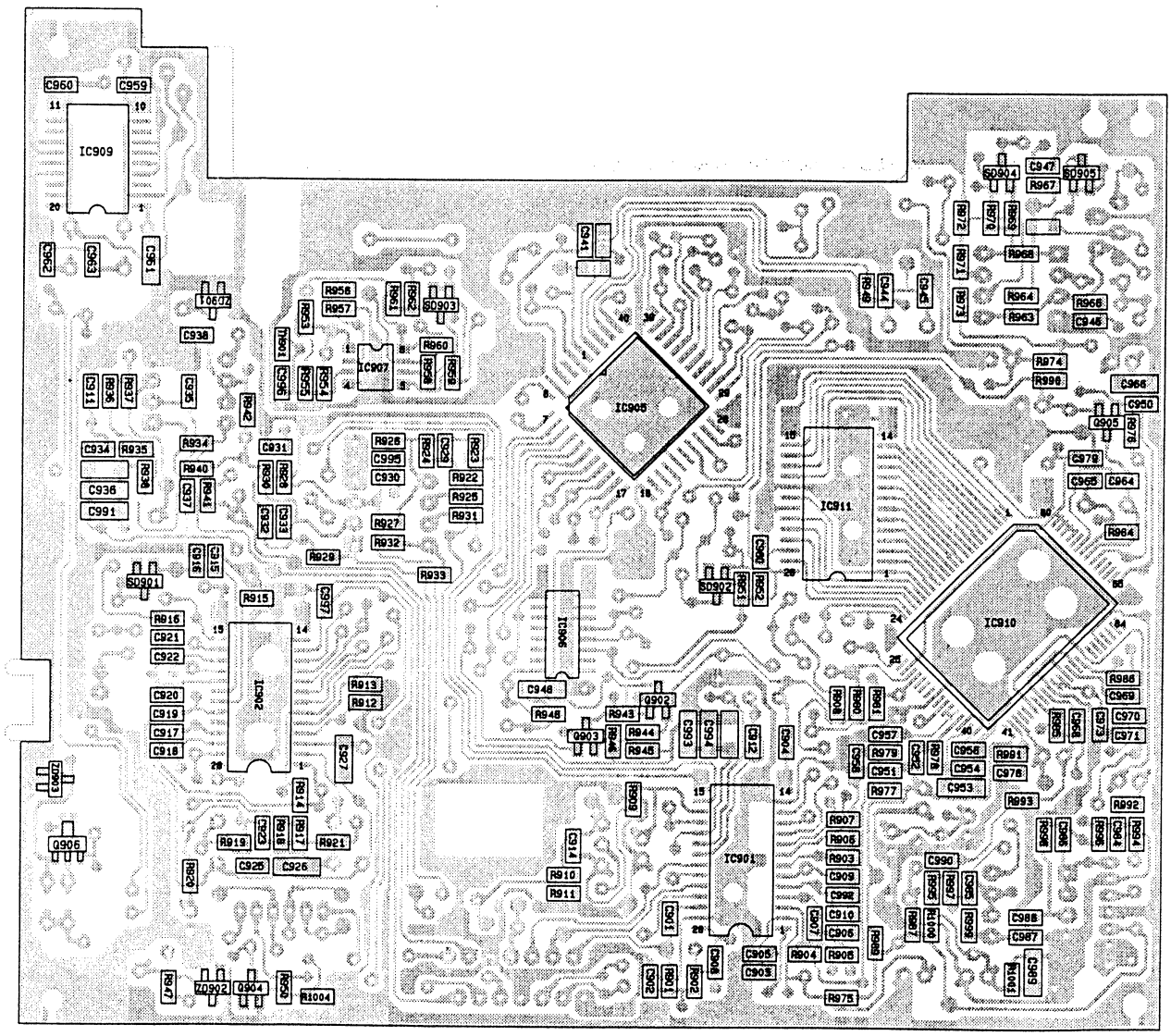


MAIN PCB LAYOUT SOLDER/CHIP SIDE

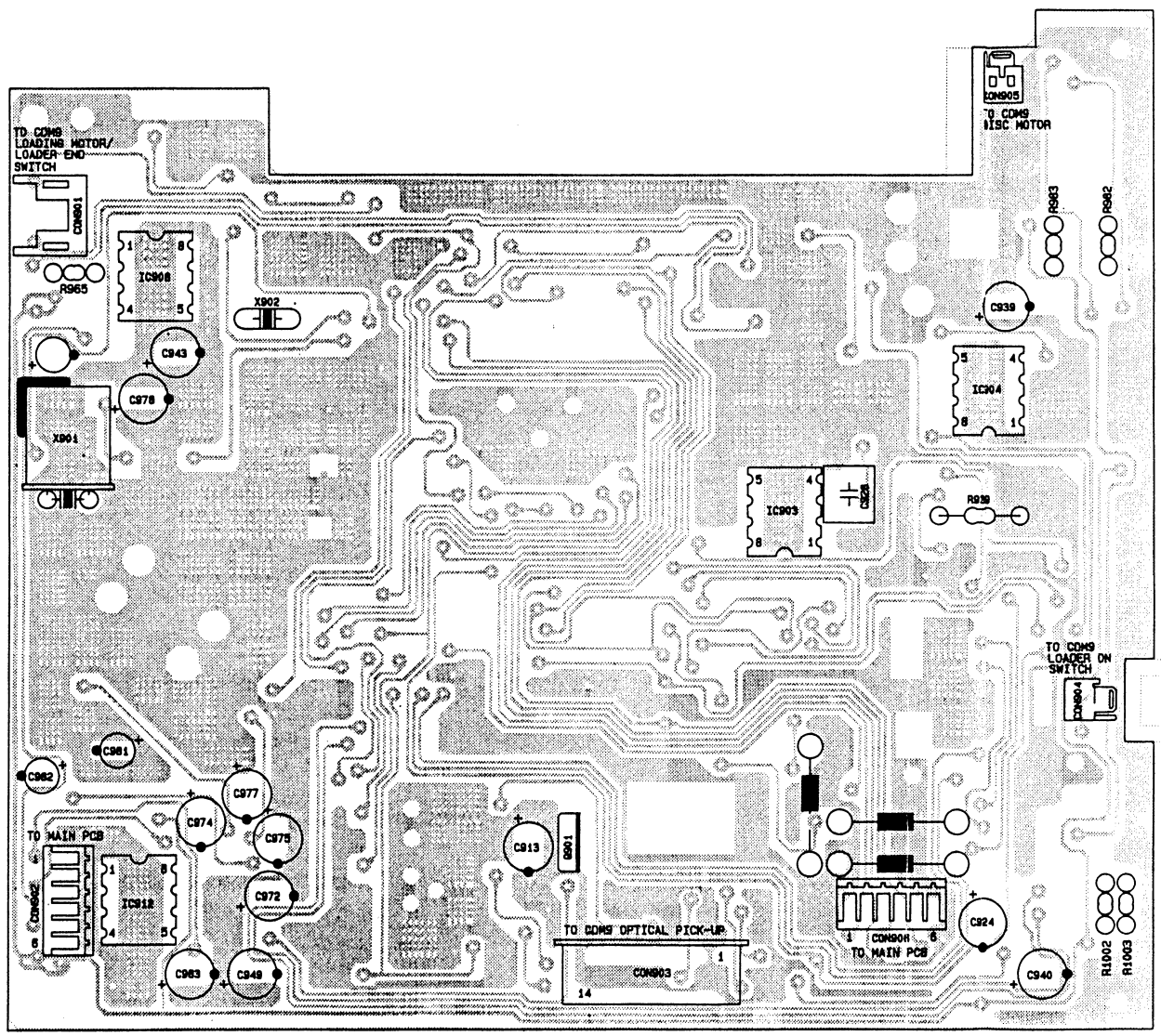


CIRCUIT DIAGRAM CD DECK INTERFACE PC3

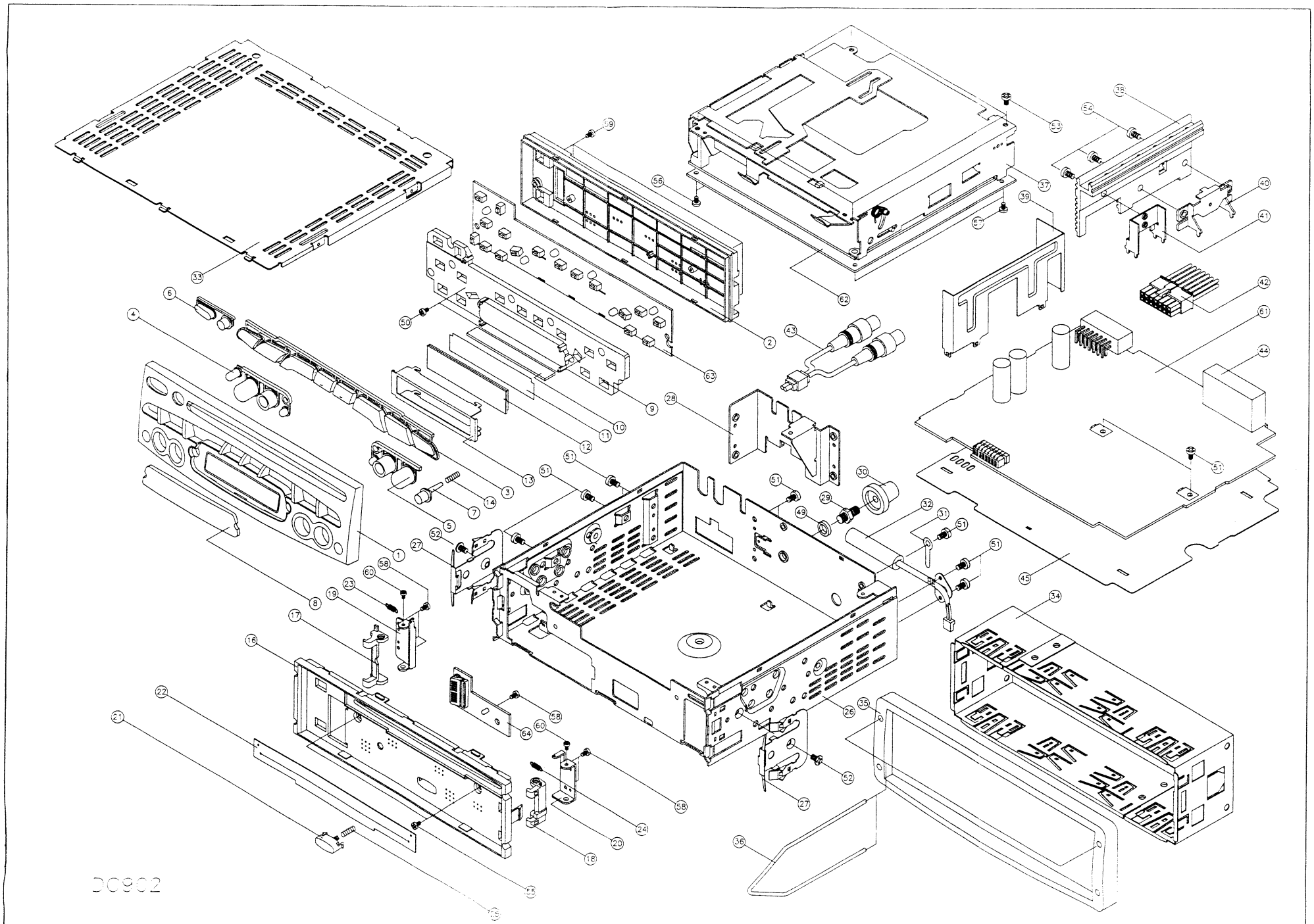



IC909
IC907
IC905
IC911
IC910
IC902
IC901
IC906
Q905
Q904
Q903
Q902
Q901
ZD902
R1004
SD901
SD902
SD903
SD904
SD905

CD DECK INTERFACE PCB LAYOUTS



EXPLODED VIEW 69DC902



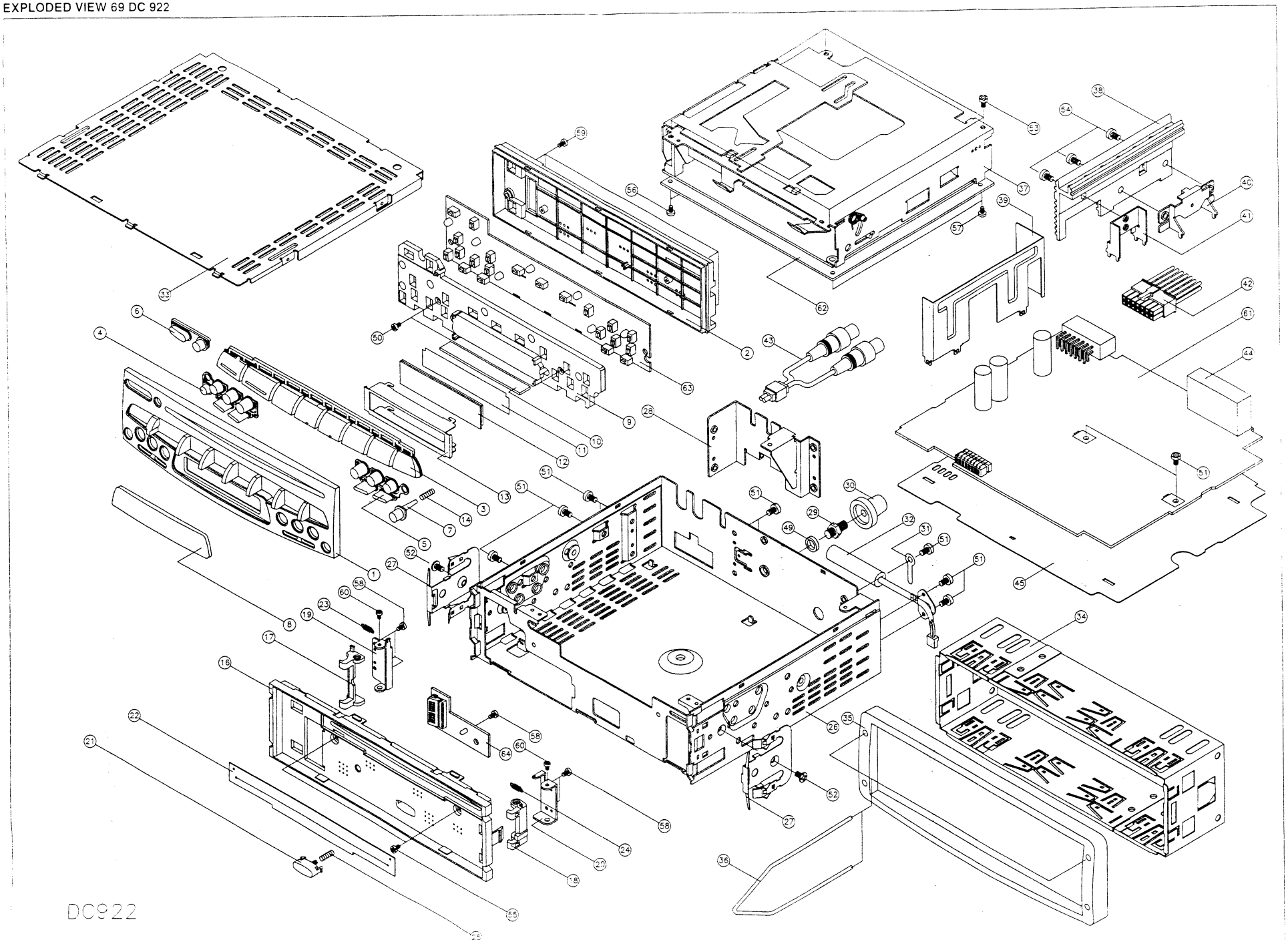
MECHANICAL PARTS

1	4822 459 50967	Front panel assy - DC902/00
1	4822 459 04039	Front panel assy - DC902/10
1	4822 459 50963	Front panel assy - DC922/00
1	4822 459 04037	Front panel assy - DC922/10
1	4822 459 04035	Front panel assy - DC922/80
2	4822 459 50961	Back panel assy
3	4822 410 63936	Function button assy - DC902
3	4822 410 63914	Function button assy - DC922
4	4822 410 63937	Left button assy - DC902
4	4822 410 63912	Left button assy - DC922
5	4822 410 63938	Right button assy - DC902
5	4822 410 63913	Right button assy - DC922
6	4822 410 63939	Power / CD eject button assy - DC902
6	4822 410 63911	Power / CD eject button assy - DC922
7	4822 410 63935	Release button - DC902
7	4822 410 63909	Release button - DC922
9	4822 380 20512	LCD reflector assy - DC902
9	4822 380 20508	LCD reflector assy - DC922
14	4822 492 33514	Release button spring
16	4822 464 70668	Base panel
21	4822 410 63908	Push button
22	4822 423 41292	Dust cover assy
25	4822 492 33515	Spring push
	4822 417 11253	Hinge assy L
	4822 417 11254	Hinge assy R
32	4822 267 31965	Aerial jack
34	4822 691 10447	Sleeve
35	4822 459 20594	Front ornament rim
42	4822 321 63106	Wire assy
43	4822 321 63105	RCA cable assy - DC902/10, DC922/00/80
43	4822 320 11151	RCA cable assy front - DC922/10
43	4822 320 11152	RCA cable assy rear - DC922/10
	4822 423 41293	Cap for RCA jack - DC902/10, DC922
	4822 462 72106	Lamp cap orange - DC902/00, DC922/00
	4822 462 10625	Lamp cap green - DC902/10, DC922/10/80
64	4822 214 52268	Front B pcb assy
	4822 460 11022	Front unit complete - DC902/00
	4822 459 04041	Front unit complete - DC902/10
	4822 459 50962	Front unit complete - DC922/00
	4822 459 04038	Front unit complete - DC922/10
	4822 459 04036	Front unit complete - DC922/80
	4822 253 30479	Fuse 7A KS

ACCESSORIES

	4822 736 22552	Instructions for use - DC902
	4822 736 22539	Instructions for use - DC922/00
	4822 736 14048	Instructions for use - DC922/10
	4822 736 14047	Instructions for use - DC922/80
36	4822 404 60814	U-bracket
	4822 600 10376	Case for detachable unit

EXPLODED VIEW 69 DC 922



ELECTRICAL PARTS MAIN SET

MISCELLANEOUS

CF101..	4822 242 82162	Ceramic filter 10.7MHz
CR101	4822 242 82163	Ceramic resonator 456kHz
SVR101..	4822 101 30891	Trimpot 10k
SW401	4822 277 21812	Slide switch
TU101	4822 210 10669	FM tuner unit
VD1101	4822 130 81673	1SV149 varactor - DC902/10, DC922
X401	4822 242 82168	Crystal 12.0MHz
X601	4822 242 82169	Crystal 4.0MHz
X801	4822 242 82171	Crystal 4.332MHz - DC902/00, DC922/00/80
X1101..	4822 242 82167	Crystal 10.7MHz - DC902/10, DC922

SEMICONDUCTORS

FT1101	4822 130 63868	FET 2SK427T - DC902/10, DC922
IC101	4822 209 73507	TEA6100/N3 FM-IF
IC102	4822 209 30859	TDA1591/V3 MPX stereo decoder
IC201	4822 209 31979	TEA6330T audio control
IC301	4822 209 90644	Power IC
IC401	4822 209 90642	Microprocessor
IC501	4822 209 33029	TDA3602 regulator
IC601	4822 209 61954	TSA6057 PLL
IC701	4822 209 90643	555 timer
IC801	4822 209 31981	SAA6579T demodulator - DC902/00, DC922/00/80
IC1101	4822 209 72247	TEA6200/V2 AM tuner IC - DC902/10, DC922
LD701	4822 130 83994	Front LED
Q101	4822 130 63867	KTC3879Y
Q102	4822 130 90326	DTA114TK
Q103..	4822 130 62492	DTC144TK
Q104..	4822 130 63866	KTC3875Y
Q105	4822 130 63872	DTC115TK
Q106..	4822 130 62893	DTC343TK
Q202	4822 130 60326	DTA144EK
Q501..	4822 130 63488	KTC3203Y
Q508..	4822 130 63869	KTB1366Y
Q510	4822 130 42431	2SC1740S
Q511	4822 130 61271	KTY1271Y
Q702	4822 130 90323	DTC114TK
Q1201..	4822 130 61801	DTC143TK - DC902/10, DC922
Q1205	4822 130 63871	KTA1504Y - DC902/10, DC922
RD501..	5322 130 81057	1N4002A
RD502	4822 130 33765	1N5402 rectifier
SD101..	4822 130 83997	KDS226ST
SD102..	4822 130 80448	1N4148M
SD408	4822 130 83995	KDS190ST
SD409	4822 130 83996	KDS196ST
SD702	4822 130 83637	DCB010
ZD301	4822 130 70003	Zener 8.2V SOT23
ZD401..	4822 130 70001	Zener 5.6V SOT23
ZD501	4822 130 83998	Zener 4.7V SOT23

COILS

L501	4822 157 71757	Choke 180µH
T101	4822 157 71769	Coil, detect
T1101	4822 144 40092	RF transformer - DC902/10, DC922
T1102	4822 144 40093	RF transformer - DC902/10, DC922

ELECTRICAL PARTS FRONT UNIT

IC1301	5322 209 11129	PCF8576T LCD driver circuit
IC1302	5322 209 11578	PCF8574T I/O circuit
LCD1301	4822 130 91516	LCD assy - DC902/00, DC922/00/80
LCD1301	4822 135 00011	LCD assy - DC902/10, DC922/10
LP1301	4822 134 41223	Lamp 14V 40mA
LP1303	4822 134 41224	Lamp 14V 60mA
SW1301..	4822 276 13643	Tact switch
ZD1301..	4822 130 70001	Zener 5.6V SOT23
ZD1303..	4822 130 34233	Zener 5.1V - DC922 (only in first version)

CD UNIT

MISCELLANEOUS

	4822 691 10366	CDM9 mechanism complete
TH901	4822 111 92221	Thermistor 4k7
X901	4822 242 81609	Crystal 16.9344MHz
X902	4822 242 72579	Ceramic resonator 4.0MHz

SEMICONDUCTORS

IC901	4822 209 73234	TDA8808 photo diode S/P
IC902	4822 209 31973	TDA8809 radial error correction
IC903..	4822 209 30146	L2722 amplifier
IC904	4822 209 62059	TCA0372 tracking driver
IC905	4822 209 90646	Microprocessor
IC906	5322 209 14481	HEF4053BT bilateral
IC907	4822 209 90647	Linear opamp
IC909	4822 209 90648	L2726 opamp
IC910	4822 209 30388	SA7341GP optical-DSP
IC911	4822 209 63985	FCB61C65L-70P memory RAM
IC912	4822 209 83163	LM833N amplifier
Q901	4822 130 61276	2SC4038
Q902..	4822 130 63871	KTA1504Y
Q903 ..	4822 130 63866	KTC3875Y
Q906	4822 130 63873	KTC43750
SD901..	4822 130 83637	DCB010
SD903..	4822 130 83997	KDS226ST
ZD901	4822 130 70002	Zener 6.2V
ZD902	4822 130 70003	Zener 8.2V
ZD903	4822 130 70004	Zener 10 V